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APPENDIX

TO THE

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OF THE

HOUSE OF REPRESENTATIVES

OF

NEW ZEALAND.

SESSION II, 1909.

VOL. II.

C.—CROWN LANDS AND MINES.

D.—IMMIGRATION AND PUBLIC WORKS.

IN THE NINTH YEAR OF THE REIGN OF HIS MAJESTY

KING EDWARD THE SEVENTH.

BEING THE SECOND SESSION OF THE SEVENTEENTH PARLIAMENT OF
NEW ZEALAND.



WELLINGTON.

1909.

ARRANGEMENT OF THE PAPERS.

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C.—CROWN LANDS AND MINES.

D.—IMMIGRATION AND PUBLIC WORKS.

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REPORT

ON THE

DEPARTMENT OF LANDS, NEW ZEALAND,

FOR THE

YEAR 1908-9.

BY

WILLIAM C. KENSINGTON, I.S.O.
UNDER-SECRETARY.



WELLINGTON.

BY AUTHORITY: JOHN MACKAY, GOVERNMENT PRINTER.

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1909.
NEW ZEALAND.

DEPARTMENT OF LANDS

(ANNUAL REPORT ON).

Presented to both Houses of the General Assembly by Command of His Excellency.

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ANNUAL REPORT.

The UNDER-SECRETARY FOR LANDS to the Right Hon. the MINISTER OF LANDS.

SIR,—

Department of Lands, Wellington, 25th May, 1909.

I have the honour to submit herewith the thirty-second annual report of the Department of Lands, which also shortly touches upon its subsidiary branches, the full reports on which will be laid before Parliament as usual.

I have, &c.,

WM. C. KENSINGTON,

Under-Secretary for Lands.

The Right Hon. Sir Joseph George Ward, P.C., K.C.M.G., Minister of Lands.

As a commencement to the annual report of 1908–9, it is not out of place to state that the Lands Department of the Dominion has entered upon the fifty-first year of its existence, and therefore is one of the oldest of the Government Departments. The first Minister or Secretary for Lands held office from 1858 to 1861. It is also interesting to trace the successive legislation dealing generally with the Crown lands of New Zealand, quite apart from the Provincial Administrations, which came to an end in 1876. In 1841 the Legislative Council passed “The Land Claims Ordinance, 1841”; but the first statute dealing with Crown lands was “The Crown Lands Ordinance, 1849,” passed in the tenth session of the Legislative Council. The Legislative Council terminated, and its place was taken by the General Assembly, which in its first session, in 1854, passed the Waste Lands Act. This was followed in 1858 by “The Waste Lands Act, 1858.” Then came “The Crown Lands Act, 1862,” whilst in 1877 the first general Colonial Act was passed, applying to the lands in every district throughout New Zealand. Following upon it came “The Land Act, 1885,” which divided New Zealand into land districts, each with its own Commissioner and a Land Board. It was followed by “The Land Act, 1892,” and its amendments, which were all merged and consolidated in “The Land Act, 1908,” under which the lands are now being administered.

AMENDMENT OF REGULATIONS.

The Consolidated Statutes of 1908 necessitated the rearrangement and reissue of all the regulations dealing with Crown lands, and many additional regulations were found necessary and have been brought into operation. A complete revision of the Crown Forest and State Forest Regulations has also been given effect to.

LAND OPENED FOR SELECTION DURING YEAR ENDED 31ST MARCH, 1909.

A glance at the schedule appearing below will show that the output of Crown lands for the past year has been largely in excess of its predecessor, and comprises a grand total of 2,654,086 acres. The schedule gives the details of how the area is made up under the several systems. Of the 393,846 acres of ordinary Crown lands, opened under the renewable-lease tenure, 306,113 acres were national endowment lands, whilst about 83,000 acres were opened under renewable lease because they were within proclaimed mining districts, and the respective Wardens would not agree to their being opened under the optional system. Then, again, 2,185 acres were opened under renewable lease because they were found to be coal-bearing lands.

Table A.—Land opened during Year 1908–9.

District.	Optional System.	Cash by Auction.	Lease by Auction and Application.	Village Allotments.	Pastoral Runs.	Small Grazing-runs.	Renewable Lease.		Totals.
							Crown Land.	Land for Settlements.	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Auckland ..	57,124	119	969	167	141,794	10,350	32,605	33,788	276,916
Hawke's Bay	21,375	4	18	53	11,296	26,870	1,072	2,294	62,982
Taranaki ..	11,363	67	46	..	..	..	14,747	461	26,684
Wellington..	15,223	150	72	1,088	..	5,622	937	5,274	28,366
Nelson ..	1,005	..	..	..	..	..	281,826	20,115	302,946
Marlborough	..	..	526	244	..	..	588	..	1,358
Westland ..	827	..	20	..	786,800	..	56,688	..	844,335
Canterbury	7,245	147	748	..	249,801	..	..	28,296	286,237
Otago ..	12,866	93	21	..	662,816	1,227	1,652	21,169	699,844
Southland ..	32,561	92	4,820	..	81,498	..	3,731	1,716	124,418
Totals..	159,589	672	7,240	1,552	1,934,005	44,069	393,846	113,113	2,654,086

LANDS BEING PREPARED FOR SETTLEMENT.

On the 31st March, 1909, the Lands Department had under survey and being prepared for opening for settlement no less an area than 1,046,682 acres, made up as follows :—

	Acres.
Ordinary Crown lands (optional system)	372,941
National endowment (renewable lease)	347,672
Native lands for Maori Land Boards, Native land settlement	326,069
Total	1,046,682

The areas given as above were distributed in the following proportions :—

Land District.	Ordinary Crown Lands.	National Endowment.	Maori Lands, chiefly for Settlement.
	Acres.	Acres.	Acres.
Auckland	53,410	31,878	170,547
Hawke's Bay	26,800	7,750	41,390
Taranaki	63,070	17,930	58,930
Wellington	50,561	Nil	26,702
Nelson	28,300	31,405	Nil
Marlborough	450	47,122	"
Westland	1,000	23,091	"
Canterbury	Nil	Nil	"
Otago	138,000	188,496	"
Southland	11,350	Nil	28,500
Totals	372,941	347,672	326,069

LANDS SELECTED UNDER ALL TENURES, 1908-9.

The number of selectors who took up land during the past year exceeds the total number of last year's selectors by 378, the figures for this year being 2,603, and the area selected under all conditions 916,521 acres. Including town, suburban, and rural lands offered by auction or opened under the optional system, the selectors who have paid cash number 350, and the total area selected by these amounts to 42,129 acres. Of this area 7,672 acres are held under conditional-purchase tenure, as set forth in section 166 of "The Land Act, 1908," the condition being that the improvements so set down must be completed within seven years. If the selector fails to do this, then, under section 168 of "The Land Act, 1908," the area may be forfeited and reverts to the Crown. In the area of 42,129 acres is also included an area of 31,880 acres of Crown lands which was transferred to the Otekaike Estate and was dealt with as part of that estate under Land for Settlement conditions. Occupation-with-right-of-purchase selectors numbered 382, selecting 123,116 acres, whilst renewable-lease selectors of national endowment lands numbered 440, occupying 124,238 acres. As the subjoined Table B gives the full particulars of all transactions, it is only necessary to refer to the Land for Settlements selectors, who numbered 288, selecting 95,698 acres. The twenty-one cash sales refer solely to areas sold under the powers conferred by section 70 of "The Land for Settlements Act, 1908," as sites for dairy factories, religious institutions, and other purposes.

Table B.—Return showing Selections during the Year, together with the Net Area held at 31st March, 1909.

Tenure.	Selections during the Year.			Net Area held at 31st March, 1909.		
	Number.	Area.		Number of Selectors.	Area.	
Ordinary Crown Lands,—		A.	R. P.		A.	R. P.
Cash lands	350	42,129	1 22	..	..	..
Deferred payment .. .. .	..	..	..	46	16,961	3 19
Perpetual lease .. .. .	..	..	..	494	86,908	3 16
Occupation with right of purchase	382*	123,116	1 30	4,897	1,656,308	3 24
Lease in perpetuity	193†	106,184	1 15	5,174	1,528,657	1 5
Renewable lease, town and rural (N.I.M.T. Railway)	81	940	2 26	81	940	2 26
Agricultural lease .. .. .	..	..	..	16	521	1 29
Homestead .. .. .	..	..	..	..	..	..
Mining districts land occupation leases	36	1,490	0 2	580	24,633	0 13
Village settlement, cash	11	16	2 18	..	..	..
.. deferred payment .. .. .	..	..	..	9	164	3 3
.. perpetual lease .. .. .	..	..	..	102	1,459	2 16
.. occupation with right of purchase .. .. .	..	..	..	31	62	2 14
.. lease in perpetuity .. .. .	..	..	..	1,095	22,919	0 14
.. renewable lease (N.I.M.T. Railway)	109	689	1 29	111	691	2 13

* This number includes 45 selectors of 23,386 acres 1 rood 29 perches who selected unsurveyed lands in previous years, but which had not been returned owing to want of surveys.
† This number includes 189 selectors of 105,899 acres 3 roods 15 perches who selected unsurveyed lands in previous years, but which had not been returned owing to want of surveys.

Table B.—Return showing Selections during the Year, &c.—continued.

Tenure.	Selections during the Year.			Net Area held at 31st March, 1909.		
	Number.	Area.		Number of Selectors.	Area.	
<i>Ordinary Crown Lands—continued.</i>		A.	R. P.		A.	R. P.
Village-homestead special settlement .. .. .	..	..	..	612	13,601	1 10
Special-settlement associations .. .. .	..	..	..	662	115,731	2 22
Improved-farm special settlements .. .. .	..	..	..	595	73,126	2 6
Small grazing-runs	2	3,555	0 0	250	459,696	1 20
Pastoral runs	43	151,980	3 37	451	6,772,210	3 37
Pastoral licenses in mining districts under special regulations	52	9,118	1 15	200	37,332	2 11
Miscellaneous leases	443	91,488	3 22	3,184	607,230	1 14
Totals	1,702	530,710	0 16	18,590	11,419,159	1 32
<i>Cheviot Estate.—</i>						
Lease in perpetuity .. .. .	..	..	..	118	24,387	2 2
Village homestead .. .. .	..	..	..	92	2,480	1 0
Grazing-farms .. .. .	..	..	..	49	45,782	0 7
Pastoral runs .. .. .	..	..	..	1	1,642	0 0
Miscellaneous leases	3	12	3 20	52	1,293	0 24
Totals	3	12	3 20	312	75,584	3 33
<i>Land for Settlements.—</i>						
Cash lands	21	47	0 10	..	..	..
Lease in perpetuity .. .. .	..	..	..	3,663	676,370	2 18
Renewable lease	228	93,294	0 20	373	155,972	3 7
Village lease in perpetuity .. .. .	..	..	..	46	438	1 28
„ renewable lease	2	9	2 16	2	9	2 16
Special-settlement associations .. .. .	..	..	..	11	2,114	1 9
Small grazing-runs .. .. .	..	..	..	112	211,004	0 33
Pastoral runs .. .. .	..	..	..	2	953	2 38
Miscellaneous leases	37	2,347	2 33	204	6,777	0 2
Totals	288	95,698	1 39	4,413	1,053,640	2 31
<i>National Endowment Lands.—</i>						
Renewable lease	383	123,770	2 4	412	128,260	1 1
„ village settlement	57	468	0 20	70	574	1 33
Small grazing-runs	8	25,434	0 0	423	1,129,732	2 13
Pastoral runs	30	69,957	2 16	221	4,265,916	0 34
Pastoral licenses in mining districts under special regulations	31	5,624	2 38	124	22,156	1 39
Miscellaneous leases	101	64,844	3 24	333	163,001	1 28
Totals	610	290,099	3 22	1,583	5,709,641	1 28
Thermal springs, Rotorua .. .. .	..	..	..	306	6,057	0 2
Grand totals	2,603	916,521	1 17	25,204	18,264,083	2 6

IMPROVED-FARM SETTLEMENTS OPENED UNDER THE LANDS IMPROVEMENT AND NATIVE LANDS ACQUISITION ACT.

The total area now held is 73,126 acres, for which there are 595 selectors, who have received advances to the total amount of £64,299 7s. 6d., but whose improvements are valued at £186,897 4s. 5d. Those situated in the Auckland District have not made much advance. In the Ohura country, Taranaki, the Commissioner of Crown Lands says in his report, “The improved-farm settlements established in this portion of the district have made excellent progress, and will undoubtedly prove a great success.” In the Wellington Land District this class of settlement has made excellent progress, but, as the Commissioner of Crown Lands, Wellington, remarks in his report, “The most of the smaller farming tenures, including improved-farm settlements, &c., are gradually coming under the general provisions of the Land Act, and following dairying wherever possible.” In last year’s report a hope was expressed of opening additional areas under this system for workers who had been engaged upon the North Island Main Trunk line. Owing, however, to the very valuable nature of the milling-timber upon most of the areas suitable for settlement, it was decided to open smaller areas under the village-homestead conditions of “The Land Act, 1908.” This is more particularly referred to in the next paragraph.

VILLAGE SETTLEMENTS.

Under the provisions of “The Land Act, 1908,” areas adjoining the North Island Main Trunk line were opened during the year, the applications being confined to workers on the railway, and with the preference to married men. It was considered that areas from 1 acre to 10, 20, or 30 acres would stand a better chance of being thoroughly cultivated than larger areas. One hundred and nine men availed themselves of this class of settlement, selecting 690 acres. There are at present 2,170 persons holding 42,401 acres under village settlement conditions, but these figures do not include those selectors who selected land under that system but who were permitted to exchange into other tenures.

INSPECTION BY CROWN LANDS RANGERS.

The answer to the question as to whether the improvement-conditions of all classes of settlement are being fulfilled lies in the reports of the Crown Lands Rangers. It is true that it is often stated that these reports give an exaggerated value to such improvements, and that they should be heavily discounted. I am glad to say that close inquiry does not substantiate this accusation, but, on the other hand, goes to show that our Crown Lands Rangers are singularly accurate in their estimates of such values. Throughout the Dominion the Crown Rangers number twenty-nine, and their work is faithfully done. The subjoined Table C gives the results of the inspections for the past year.

Table C.—Return of Number of Inspections made by the Rangers for the Year ended 31st March, 1909.

District.	Number of Properties visited.	Area.			Value of Improvements.						Number of Defaulters.				
					Required.			Actually made.			For Deficient Improvements only.	For Non-residence only.	For Non-residence and Improvements.	For other Reasons.	Total.
		A.	R.	P.	£	s.	d.	£	s.	d.					
Auckland ..	1,416	483,221	0	0	121,867	0	0	325,309	0	0	97	179	119	..	395
Hawke's Bay ..	488	305,105	0	7	136,948	13	5	530,847	14	8	31	77	..	7	115
Taranaki ..	284	107,658	1	27	29,395	0	0	74,509	0	0	18	22	4	..	44
Wellington ..	1,297	236,960	3	6	77,537	1	8	241,828	1	1	12	55	..	3	70
Nelson ..	492	195,615	0	0	23,688	0	0	44,671	0	0	111	29	11	..	151
Marlborough ..	504	253,841	0	0	91,310	0	0	211,841	0	0	11	57	10	1	79
Westland ..	440	65,850	0	0	23,618	15	0	66,522	10	0	2	40	8	..	50
Canterbury ..	1,699	386,088	1	20	281,918	2	2	509,378	3	7	64	16	3	..	83
Otago ..	981	446,111	0	0	123,680	0	5	243,794	11	4	57	12	..	..	69
Southland ..	378	83,328	0	35	42,073	13	3	97,069	3	6	2	5	3	..	10
Totals ..	7,979	2,563,718	3	15	952,036	5	11	2,345,770	4	2	405	492	158	11	1,066

NOTE.—The above figures do not include miscellaneous inspections where improvement and other conditions were not involved.

THE FOREST-FIRES OF LAST YEAR.

In last year's report a table was given on page 7 showing the amount of grass-seed granted to 714 settlers, and its value. Below I give particulars of additional assistance rendered, which was not brought to account in the previous year's return. I have also shown the amount of advances repaid up to the 31st March, 1909.

	£
Value of additional grass-seed supplied to settlers	1,539
Value of seed sown on Crown lands	1,851
Amount repaid by settlers up to the 31st March, 1909	3,179

REVENUE.

The total amount received as revenue from all sources amounts to £696,375, or £37,581 more than last year, and has exceeded the estimated revenue for this year by £32,713, a most gratifying result. The territorial revenue (which this year excludes all lands within the national endowment schedules, and also all lands selected during the year under renewable lease) amounted to £224,526, whilst non-territorial (inclusive of national endowment lands) realised £471,849. Table D, below, gives the details:—

Table D.—Revenue received during the Year ended 31st March, 1909.

District.						Territorial Revenue.	Non-territorial Revenue.	Total Revenue.
						£	£	£
Auckland ..	..	..	..	..	..	50,233	74,243	124,476
Hawke's Bay ..	..	..	..	..	..	22,925	55,028	77,953
Taranaki ..	..	..	..	..	..	12,077	13,877	25,954
Wellington ..	..	..	..	..	..	31,660	55,940	87,600
Nelson ..	..	..	..	..	..	8,298	25,123	33,421
Marlborough ..	..	..	..	..	..	9,577	24,914	34,491
Westland ..	..	..	..	..	..	2,720	12,488	15,208
Canterbury ..	..	..	..	..	..	29,079	112,066	141,145
Otago ..	..	..	..	..	..	46,107	77,979	124,086
Southland ..	..	..	..	..	..	11,850	20,191	32,041
Totals ..	..	..	..	..	..	224,526	471,849	696,375

It will be noticed that the revenues received from the Auckland and Otago Districts are almost equal. I am glad to say that the estimated amount to be received from national endowment—viz., £73,547—was more than realised, the actual receipts being £76,510.

REBATES OF RENT.

Under "The Crown Tenants' Rent Rebate Act, 1900," now embodied in "The Land Act, 1908," rebates amounting to £8,295 13s. 2d. have been granted to tenants. Under section 55 of "The Land for Settlements Act, 1908," rebates to the amount of £19,881 16s. 4d. have been granted to 3,631 tenants. The tenants of the Cheviot Estate have also been similarly dealt with to the number of 191, the amount remitted being £705 6s. 5d. The total rebates of all kinds amounted to £28,882 15s. 11d.

PAYMENT OF "THIRDS" AND "FOURTHS" TO LOCAL BODIES.

Local bodies have benefited to the amount of £35,340 16s. 6d., as provided for by section 145 *et seq.* of "The Land Act, 1908," and in districts where local government is not in operation a sum of £1,563 18s. 1d. has been expended by the Roads Branch of the Public Works Department. It must be remembered that the various Land Boards, before passing the several amounts due from time to time to county authorities and Road Boards, have to be furnished with complete schedules showing in what manner it is proposed to expend the sums which have accrued, and the Land Boards have to be satisfied that the local body proposes to expend the moneys to the best advantage of the settlers.

TIMBER AND FLAX ROYALTIES.

Local bodies have also benefited to the amount of £20,515 18s. 2d. by the share of royalties payable under section 319 of "The Land Act, 1908." Here it may not be out of place to remark that many local bodies in the North have been under the impression that they were to get halves from revenue accrued from timber-sales under "The State Forests Act, 1908." This is not so, as clearly laid down in section 319 of "The Land Act, 1908," which distinctly states that only halves from royalties paid into the Consolidated Fund go to local bodies. No revenue from State forests is paid into the Consolidated Fund, but it is all paid direct into the State Forests Account, and the revenue so paid into that fund is the sole source of income (up to now) from which is paid all the cost of reafforestation represented by the State nurseries and plantations.

MEDICAL ASSISTANCE TO SETTLERS IN SPARSELY SETTLED DISTRICTS.

Subsidies under the above heading have been paid to the settlers' medical centres in the several localities set forth below, amounting in all to £1,086 5s.

Name of Medical Society.	Amount of Subsidy. £	Amount paid 1908-9.		
		£	s.	d.
Clevedon	25	20	16	8
Kaitaia	50	50	0	0
Kawakawa	50	50	0	0
Kawhia	50	50	0	0
Little River	50	50	0	0
Ohura	100	100	0	0
Owaka	150	150	0	0
Preservation Inlet	50	50	0	0
Raetihi	100	100	0	0
Raglan	50	50	0	0
Morrinsville	30	30	0	0
Taumarunui	50	50	0	0
Tinui	50	50	0	0
Tolaga Bay	75	93	15	0
Waiau	25	25	0	0
Wanaka	100	100	0	0
Weber	50	16	13	4
Whangaroa	50	50	0	0
	1,105	1,086	5	0

It is, however, a question whether subsidies of this nature, originally given by the Lands Department to assist settlement in the backblocks, should not now be dealt with and provided for by the Health Department rather than by the Lands Department, which naturally cannot control or supervise in any complete way the services rendered.

LAND FOR SETTLEMENTS ESTATES.

The table E, appended below, shows the position and prospects of each settlement. The past year has been a very favourable one, and capital progress has been made by the settlers. Six additional estates have been acquired and opened for selection—viz., three in the North Island and three in the South Island. The last two estates balloted for just at the close of the financial year were Kauroo Hill in Otago and Carrington in the Wellington Land District.

Table E.—Summary of the Settlements established upon Estates acquired and dealt with, under the Provisions of the Land for Settlements Act, up to the 31st March, 1909.

Land District and Name of Settlement.	Selectors.	Residences.	Principal Purpose for which Holdings are utilised.	Progress during Year.	Present Position.	Prospects.
Auckland—						
Opouriao ..	93	77	Dairying ..	Not inspected	Excellent ..	Bright.
Okauia ..	8	6	Grazing ..	Considerable	Satisfactory ..	Hopeful.
Rangiatea ..	20	18	Dairying ..	Fair ..	" ..	Good.
Karapiro ..	18	12	" ..	" ..	" ..	" ..
Fencourt ..	37	36	" ..	Substantial	" ..	Bright.
Whitehall ..	11	9	" ..	Fair ..	" ..	Good.
Bickerstaffe ..	35	29	Grazing ..	" ..	" ..	Hopeful.
Matamata ..	186	154	Dairying ..	Considerable	Excellent ..	Bright.
Selwyn ..	87	51	Grazing ..	Little ..	Fair ..	Doubtful.
Mangapouri ..	10	9	Dairying ..	Substantial	Satisfactory ..	Good.
Mangawhero ..	18	18	" ..	" ..	" ..	" ..
Waimana ..	25	18	" ..	" ..	" ..	Bright.
Teasdale ..	39	13	Residences ..	Fair ..	Fair ..	Hopeful.
Tautari* ..	15	..	" ..	" ..	" ..	" ..
Rewi* ..	1	..	" ..	" ..	" ..	" ..
Craddock ..	13	13	Residences ..	Fair ..	Fair ..	Hopeful.
Hetana ..	32	27	" ..	" ..	" ..	" ..
Kitchener ..	12	10	" ..	" ..	" ..	" ..
Methuen ..	28	24	" ..	Encouraging	Satisfactory ..	Bright.
Plumer ..	16	15	" ..	" ..	" ..	" ..
Waari ..	8	6	" ..	Fair ..	Fair ..	Hopeful.
	710	545				
Hawke's Bay—						
Raureka ..	19	18	Agricultural, dairying, and fruit-culture	Very satisfactory	Prosperous ..	Good.
Elsthorpe ..	48	27	Pastoral ..	Ditto ..	" ..	" ..
Waimarie ..	18	36	Agricultural ..	" ..	" ..	" ..
Pouparae ..	9	26	" ..	" ..	" ..	" ..
Tomoana ..	13	12	Agricultural, dairying, and fruit-culture	" ..	" ..	" ..
Mahora ..	34	32	Ditto ..	" ..	" ..	" ..
Willows ..	22	41	Agricultural ..	Very fair ..	" ..	" ..
Hatuma ..	76	59	Agricultural and pastoral	Very good ..	" ..	" ..
Manga-a-toro ..	26	25	Pastoral ..	Satisfactory	" ..	" ..
Kumeroa ..	15	14	Pastoral and dairying	" ..	" ..	" ..
Forest Gate ..	29	25	Agricultural and pastoral	Very fair ..	" ..	" ..
Argyll ..	62	60	" ..	" ..	" ..	" ..
Wigan ..	17	32	Pastoral ..	" ..	" ..	" ..
Lindsay ..	68	61	Agricultural and pastoral	Very good ..	" ..	" ..
Mangatahi ..	23	21	Pastoral ..	" ..	" ..	" ..
Te Mata ..	8	7	Fruit-culture ..	Fair ..	" ..	" ..
Pourerere ..	5	4	Pastoral ..	" ..	" ..	" ..
Raumati ..	30	17	Dairying ..	Very satisfactory	" ..	" ..
Kanakanaia ..	7	11	Pastoral ..	Ditto ..	" ..	" ..
Te Arai ..	54	56	Agricultural and pastoral	" ..	" ..	" ..
Waipuka* ..	..	..	" ..	" ..	" ..	" ..
	583	584				
Taranaki—						
Tokaora ..	13	12	Dairying ..	Good ..	Satisfactory ..	Fair.
Spotswood ..	9	11	Grazing ..	Unsatisfactory	Unsatisfactory ..	Not good.
Clandon ..	6	5	Dairying ..	Satisfactory	Satisfactory ..	Fair.
Huinga ..	9	10	Dairying and sheep	" ..	" ..	" ..
	37	38				
Wellington—						
Paparangi ..	36	36	Residential sites, dairying	Good ..	Good ..	Good.
Ohakea ..	17	15	Dairying ..	Very good ..	Prosperous ..	Very good.
Te Matua ..	13	12	" ..	" ..	" ..	" ..
Aorangi ..	37	40	Dairying and residential sites	" ..	Very prosperous	Excellent.
Langdale ..	30	24	Grazing and cropping ..	Good ..	Prosperous ..	" ..
Mangawhata ..	7	7	Dairying ..	" ..	Very satisfactory	Good.
Epuni ..	42	42	Residential sites, market gardening, &c.	Fair ..	Satisfactory ..	Fair.
Maungaraki ..	21	18	Ditto ..	" ..	" ..	" ..
Linton ..	5	5	Dairying ..	Good ..	" ..	Good.
Longbush ..	7	6	Grazing ..	" ..	Very prosperous	Excellent.
Tablelands ..	9	9	" ..	" ..	" ..	" ..
Normandale ..	29	28	Residential sites, poultry-farming, &c.	Fair ..	Satisfactory ..	Fair.
Tawaha ..	24	21	Grazing and cropping ..	Good ..	Good ..	Good.
Hikawera ..	3	3	Grazing ..	" ..	Prosperous ..	Very good.
Mahupuku ..	8	8	" ..	" ..	" ..	" ..
Dyer ..	36	35	Grazing and cropping ..	Very good ..	Very prosperous	Excellent.
Hawtreys* ..	4	..	" ..	" ..	" ..	" ..
Carrington* ..	23	..	" ..	" ..	" ..	" ..
	351	309				

* New settlements, recently selected, not reported on.

Table E.—Summary of the Settlements established upon Estates acquired and dealt with, under the Provisions of the Land for Settlements Act, up to the 31st March, 1909—continued.

Land District and Name of Settlement.	Selectors.	Residences.	Principal Purpose for which Holdings are utilised.	Progress during Year.	Present Position.	Prospects.
Nelson—						
Wangapeka ..	14	10	Agricultural and pastoral..	Excellent ..	Very good ..	Very encouraging.
Braeburn ..	12	7	"	Very good ..	Good ..	Ditto.
	26	17				
Marlborough—						
Blind River ..	17	13	Sheep-farming and grain-growing	Good ..	Satisfactory ..	Good.
Omaka ..	13	11	Ditto ..	Fair ..	" ..	"
Pubipuhi ..	2	..	Grazing ..	Good ..	" ..	"
Starborough ..	193	104	Sheep-farming and grain-growing	" ..	Very satisfactory	Excellent.
Richmond Brook	11	10	" ..	" ..	" ..	Decidedly good.
Waipapa ..	4	4	Grazing ..	" ..	Good ..	Good.
North Bank ..	7	6	" ..	Satisfactory	Fair ..	Fair.
Rainford ..	11	11	Dairying ..	" ..	Satisfactory	Decidedly good.
Flaxbourne ..	117	87	Sheep-farming and grain-growing	Very good ..	" ..	Much enhanced by prospective opening of the railway.
	375	246				
Westland—						
Poerua ..	19	15	Grazing, dairying, and fattening stock for local markets	Good ..	Prosperous ..	Good.
Kokatahi ..	8	7	Ditto ..	" ..	" ..	"
Miscellaneous licenses	2	..	" ..	" ..	" ..	"
	29	22				
Canterbury—						
Pareora (No. 1) ..	28	24	Small farming and dairying	Steady ..	Satisfactory ..	Good.
Studholme Junct.	4	2	" ..	" ..	" ..	"
Kapua ..	12	12	" ..	" ..	" ..	"
Rosebrook ..	14	13	" ..	" ..	" ..	"
Otaio ..	9	8	" ..	" ..	" ..	"
Peaks ..	12	1	Mixed farming ..	" ..	" ..	"
Roimata ..	27	25	Residential and market-gardening	" ..	" ..	"
Patoa ..	4	2	Grazing ..	" ..	" ..	"
Braco ..	14	14	Residential and market-gardening	" ..	" ..	"
Epworth ..	2	1	Small farm ..	" ..	" ..	"
Ashley Gorge ..	10	12	Partly pastoral and partly dairying	" ..	" ..	"
Kereta ..	4	3	Dairying ..	" ..	" ..	"
Orakipaoa ..	27	20	Small farming ..	" ..	" ..	"
Highbank ..	78	58	Mixed farming ..	Good ..	Excellent	Very good.
Rakitairi ..	22	17	Mixed farming and dairying	" ..	Very good	"
Waiapi ..	15	14	Ditto ..	" ..	Good ..	"
Otarakaro ..	7	7	Residential and market-gardening	" ..	" ..	"
Wharenuui ..	26	23	Workmen's homes ..	" ..	" ..	"
Albury ..	75	58	Mixed farming ..	Satisfactory	Excellent	"
Marawiti ..	13	12	" ..	" ..	Very good	"
Horsley Down ..	26	23	" ..	" ..	Excellent	"
Hekeao ..	15	13	" ..	" ..	Very good	"
Pawaho ..	25	25	Workmen's homes	" ..	" ..	"
Waikakahi ..	184	159	Partly pastoral and partly mixed farming	Very good ..	Excellent	"
Tamai ..	40	40	Workmen's homes ..	Good ..	Good ..	Good.
Takitu ..	5	5	Pastoral ..	" ..	Very good	Very good.
Pareora (No. 2) ..	32	32	Mixed farming and dairying	" ..	Excellent	"
Rautawiri ..	6	6	Small farming ..	" ..	Good ..	Good.
Papaka ..	9	9	Mixed farming ..	" ..	Very good	Very good.
Punaroa ..	17	17	Mixed farming and dairying	Very good ..	Excellent	"
Lyndon (No. 1) ..	8	8	Principally pastoral ..	Satisfactory	Good ..	Good.
Kohika ..	15	15	Mixed farming and dairying	" ..	" ..	"
Tarawahi ..	24	24	Workmen's homes ..	" ..	" ..	"
Raincliff ..	1	1	Principally pastoral ..	Steady ..	" ..	"
Pubuka ..	10	10	Workmen's homes ..	Good ..	Very good	Very good.
Kaimahi ..	12	11	Market gardening ..	Fairly good	Fairly good	Improving.
Kaputohe ..	12	11	Workmen's homes ..	" ..	Satisfactory	"
Rapuwai ..	5	5	Principally pastoral ..	Good ..	Good ..	Good.
Lyndon (No. 2) ..	9	9	" ..	Steady ..	" ..	"
Maytown ..	11	11	Small farming and dairying	Good ..	" ..	"
Eccleston ..	4	4	Mixed farming ..	" ..	" ..	"
Mead ..	21	19	" ..	" ..	Fairly good	"
Chamberlain ..	20	22	Partly pastoral and partly mixed farming	Good ..	Very good	Very good.
Annan ..	43	39	Ditto ..	" ..	" ..	"
Rosewill ..	154	145	Mixed farming ..	Very good ..	Excellent	"

Table E.—Summary of the Settlements established upon Estates acquired and dealt with, under the Provisions of the Land for Settlements Act, up to the 31st March, 1909—continued.

Land District and Name of Settlement.	Selectors.	Residences.	Principal Purpose for which Holdings are utilised.	Progress during Year.	Present Position.	Prospects.
Canterbury— <i>contd.</i>						
Morice	29	27	Dairying and grass-seeding	Good ..	Fairly good ..	Fairly good.
Kinloch	30	26	Grazing	" ..	" ..	Improving.
Mills	21	21	Dairying and small farming	" ..	Good ..	Good.
Culverden	43	31	Pastoral and mixed farming	" ..	" ..	" ..
Homestead-sites, &c.	9	5	..	..	..	..
Miscellaneous occupation licenses	43	..	..	..	..	..
	1,286	1,102				
Otago—						
Airedale	12	11	Dairying and general farming	Good ..	Good ..	Good.
Ardgowan	66	50	Ditto	" ..	" ..	" ..
Barnego	24	18	Grain-growing and sheep-grazing	" ..	Sound ..	Very fair.
Duncan	7	4	Grain-growing and dairying	Indifferent ..	Not satisfactory	Doubtful.
Earnsclough	13	8	Fruit-growing	Very fair ..	Satisfactory ..	Good.
Elderslie	34	24	General farming, raising fat lambs, and wool-growing	Good ..	Very good ..	Very good.
Greenfield	41	40	General farming, dairying, and wool-growing	" ..	Good ..	" ..
Janefield	21	19	Dairying and residential ..	Fair ..	Satisfactory ..	Very fair.
Kauroo Hill*	39	2	..	..	..	..
Kuroo	14	13	Dairying and general farming	Fairly good	Good ..	Good.
Maerewhenua	75	56	General farming, dairying, wool-growing, and raising fat lambs	Good ..	" ..	Very good.
Makareao	35	22	Ditto	Fair ..	" ..	Good.
Makareao Extension						
Meadowbank	8	7	General farming, grazing, &c.	" ..	" ..	" ..
Momona	14	14	Dairying	Substantial	Very sound	..
Otekaikē	66	54	Wool-growing, grain, and general farming	Good ..	Good ..	" ..
Plunket	18	17	Dairying, wool-growing, and general	" ..	" ..	" ..
Pomahaka	27	14	Grain-growing, grazing, &c.	Fair ..	Fair ..	Fair.
Puketapu	11	9	Dairying and general farming	Good ..	Good ..	Good.
St. Helen's	3	3	General farming	Fair ..	Fair ..	Fair.
Steward	47	43	General farming, sheep-raising, &c.	Good ..	Good ..	Good.
Tahawai	8	8	Dairying	Fair ..	" ..	" ..
Taumata	9	8	Grain-growing and general farming	Good ..	" ..	" ..
Teaneraki	23	15	Dairying and general farming	Fair ..	Fair ..	Fair.
Tokarahi	79	47	General farming, dairying, and raising fat lambs	Good ..	Good ..	Very good.
Totara	27	25	Dairying and general farming	Fair ..	Fair ..	Fair.
Windsor Park No. 1	37	24	Grain-growing, dairying, and general farming	" ..	Good ..	Good.
Windsor Park No. 2	10	8	Ditto	" ..	" ..	" ..
	768	563				
Southland—						
Merrivale	48	38	Grazing and dairying ..	Very good ..	Very good ..	Good.
Otahu	6	5	Farming and grazing ..	Good ..	Satisfactory ..	" ..
Beaumont	12	7	"	Fair ..	" ..	Encouraging.
Ringway	8	8	Grazing	" ..	" ..	Fair.
Glenham	35	32	Farming, dairying, and grazing	Good ..	Good ..	Very encouraging
Edendale	142	122	Ditto	Very good ..	Very good ..	Excellent.
	251	212				
Grand total	4,416	3,638				

* Just opened. Will be used for general farming and wool-growing.

REPORTS ON MATTERS WHICH ARE CONTROLLED AND SUPERVISED BY THE LANDS DEPARTMENT.

Crown Purchases from Maori Owners.

In last year's annual report 263,002 acres were reported as being purchased. Additional areas amounting to 6,936 acres have since been acquired at a cost of £5,974. It is proposed to continue purchasing suitable lands direct from the Maori Land Boards whenever the Maori owners are wishful

to sell. The Maori Land Boards have this power, and there will be no additional cost to be provided in salaries for Land-purchase Agents.

Land for Landless Natives in the South Island.

Under the provisions of "The South Island Landless Natives Act, 1906," an area of 128,617 acres has been reserved and gazetted during the year for the purpose of granting the same to landless Natives in the South Island. The area is distributed as follows:—

	Acres.
Westland Land District	4,475
Otago Land District	7,176
Southland Land District	116,966
Total	128,617

These areas have been subdivided into suitable allotments, varying generally from twenty to fifty acres, and thirteen warrants for the issue of certificates of title to 295 Natives have been executed during the year by His Excellency the Governor.

Regulations as to the leasing of the lands and for the disposal of timber were gazetted on the 4th March, 1909.

Forests generally and State Forests.

In addition to the usual report dealing with reafforestation and the progress of State forest plantations, an exhaustive report dealing with forestry in New Zealand is also being prepared, and will be laid before Parliament as a separate paper. Its object is to show exactly how much forest now exists in this country, how much of it is available for milling and commercial purposes, and how much it is necessary to retain in a state of nature for climatic, scenery, and soil-protection purposes. The report will also indicate the various uses to which the classes of timber in New Zealand are at present, and may in the future, be put; the countries and localities from which timbers outside the Dominion may be procured; and, finally, what is being done by the Government to reforest the denuded areas in New Zealand and provide future supplies. Roughly speaking, the report will be divided and dealt with under five heads, with a general summary and conclusions. It may be interesting to note that in 1907 the estimated amount of milling-timber in New Zealand was set down as thirty-six thousand million superficial feet (36,000,000,000), but now, at the close of March, 1909, it is estimated at thirty-four thousand million superficial feet (34,000,000,000). This is, however, without taking into account the milling-timber within the area of 2,485,900 acres in the Sounds National Park.

Botanical and Descriptive Paper on Stewart Island.

A very comprehensive paper upon the plant-life of Stewart Island and other matters by Dr. Cockayne appears as a separate paper. Dr. Cockayne was officially engaged to furnish this report, and it has been given with his usual thoroughness and carefulness of detail.

Botanical Report on Waimarino Forest and District.

A botanical report upon the Waimarino Forest and district by Mr. E. Phillips Turner appears as a separate paper. It has been dealt with in a most painstaking manner, and it also contains a list of all the indigenous plants in the forest and their botanical names. As this report has been written without interfering with Mr. Turner's inspection and survey of scenic reserves, he deserves all the more credit for its production.

Report on Sand-dunes by Dr. Cockayne.

During the summer Dr. Cockayne was engaged officially in making an examination of the sand-dune area on the Wellington coast from Foxton towards Patea, with a view to suggestions as to the best method of dealing with sand-encroachment. It was only intended as a preliminary report, with a view to more complete investigations at a future date. His report will be printed as a separate paper.

Kapiti Island.

The Crown portion of Kapiti Island, in the Wellington District, is now under the charge of Mr. Henry, formerly of Resolution Island. In order to secure more regular communication with the mainland, an oil-launch was built for Mr. Henry's use, and is now in working-order. If the island is to be kept strictly as a sanctuary for Native fauna, further action in the shape of acquiring the remaining Maori interests will be necessary, though no trouble has arisen as yet, the Maoris themselves being most anxious to further the Government's views.

Scenery-preservation.

The Board has held several meetings during the year, and made recommendations to the Governor as to acquiring ornamental forest-areas in several localities. The area proclaimed as reserved during the past year amounted to 5,045 acres, the expenditure for the same period being £5,765 5s. 2d. The Inspector, Mr. E. Phillips Turner, has personally supervised the surveys of the areas acquired along the North Island Main Trunk Railway-line, and negotiated with the owners or lessees. Two survey parties have now been at work cutting out the areas on the ground, and capital progress has been made with this important national work.

Drainage of the Hauraki or Piako Plains.

Excellent progress has been made with the drainage-works carried on under the direction of Mr. William C. Breakell, C.E. Briefly to summarise the operations up to the 31st March, 127 miles of drains have been constructed, and the work of forming roads and tracks of access is being proceeded with. From the Piako River mouth to its junction with the Waitoa all snags have been removed; for the next three miles the stream has been cleared of logs to a width of 25 ft., and all willows removed along the whole distance. From the Waitoa River all logs have been removed for three miles. The main canal, fifteen miles long, has been opened along its entire length by a drain 9 ft. wide at surface, 6 ft. wide at base, and 3 ft. deep. Of the two Priestman dredges of special make, imported direct from the makers, one is now at work at the north, or Waitakaruru end, and the other will shortly be at work at the south end. Eight flood-gates have been erected, and twenty more are to follow. Two wharves have been constructed, and two more are under construction. One office, one cottage, and nine workers' dwellings have been erected at Waitakaruru, and a cookhouse is now in hand. About 145 men are now employed on the works; the average for March was about a hundred. The amount expended during the past year was £25,683, and the amount expended since 1906 to date is £30,792. In order to prepare the land for opening for settlement, two survey parties have commenced work, and these will be further increased. It is hoped to have 20,000 acres offered for selection in nine months, and another 10,000 acres within six months after. If the demand for flax again becomes general the Crown will be able to furnish a supply from a large and extending area at the lowest royalty rates; and, the waterways for the carriage of the green flax being so extensive, the cost will be much minimised.

Recreation Reserves brought under Part II of "The Public Reserves and Domains Act, 1908."

These, numbering some 457, are supervised by the Lands Department, though locally managed by Domain Boards consisting of selected trustees or local bodies. A general report will be laid before Parliament as usual. In the case of newly dedicated areas, small grants are made from parliamentary appropriations towards the clearing and fencing. The total amount given during the past year amounted to £922.

Cemeteries.

Fourteen new cemetery-sites have been gazetted during the past year, and small subsidies towards clearing, &c., have been granted, totalling in all £214 1s. 2d.

Survey of Crown and Native Lands.

The financial aspect of these surveys may be briefly noticed, as dealt with by the Under-Secretary; and, looking at the keen demand by the public for the opening-up of Crown land and purchased estates for settlement, and the recent determination of the Government that all surveys for the Maori Land Boards, who are opening Maori lands for lease or sale (as the result of the labours of Sir Robert Stout's Commission) should be conducted by the Lands and Survey Department, I cannot see that any diminution of the amount asked for to be appropriated by Parliament can be made. Rather it would seem that a vigorous prosecution of Native surveys will demand that £15,000 to £20,000 should be appropriated in addition out of the sums granted to the Native Department.

DEPARTMENTAL AND GENERAL.

Owing to the coming into force of the provisions of the Public Service Superannuation Act, considerable changes in the *personnel* of the staff have taken place, and, in addition to those mentioned on page 15 of last year's report, the following old and valued officers have either retired or are about to retire: viz., Thomas Humphries, Surveyor-General; David Barron and Henry Trent, Commissioners of Crown Lands and Chief Surveyors at Dunedin and Napier respectively; W. D. B. Murray and S. Thomson, Chief Draughtsmen at the Head Office and Dunedin respectively; Messrs. Montgomerie and Snodgrass, District Surveyors; Messrs. W. E. Sessions and G. Fannin, Chief Clerks at Dunedin and

Invercargill respectively; Messrs. A. Morrow, W. C. Spencer, G. A. Beere, E. W. Laceron, E. H. Featon, W. Tole, and H. T. Wadie, Draughtsmen; E. C. Douglas, Explorer; and Messrs. W. B. Harlow, D. M. McGoun, J. Rodger, and H. J. Taylor, clerks. All these have served the Dominion very faithfully, and, in the cases of most of the senior officers, with marked ability. The promotions which necessarily follow on these retirements will more properly be dealt with in next year's report. A statement of the expenditure of the Department, which is under the charge of Mr. R. A. Paterson, is appended. The Chief Clerk of the Head Office, Mr. F. T. O'Neill, has shown a full appreciation of the responsibilities of his position, and I am indebted to him and Mr. Paterson for the successful carrying-on of the Immigration Branch of this Department. Mr. Jourdain also merits special notice from the fact that he was selected as Secretary to the Timber Commission, and is now engaged on its duties.

EXPENDITURE OF THE DEPARTMENT.

The following is a summary of the expenditure of the Department for the Year ended 31st March, 1909:—

Vote No.	Name of Vote or Account.	Amount voted (Net).	Expenditure (Gross).	Recoveries.	Expenditure (Net).
		£	£ s. d.	£ s. d.	£ s. d.
71	Lands and Survey ...	165,678	174,754 19 4	19,207 8 5	155,547 10 11
72	Lands and Survey, Miscellaneous	96,252	80,925 9 7	4,305 15 7	76,619 14 0
109	Immigration ...	10,000	35,020 19 8	19,944 9 3	15,076 10 5
120	Improved-farm Settlements ...	4,950	2,721 14 9	778 4 8	1,943 10 1
121	Lands, Miscellaneous ...	12,200	15,639 10 2	7 10 6	15,631 19 8
122	Irrigation and Water-supply ...	5,000	1,968 4 6	1 15 8	1,966 8 10
123	State Forests ...	30,496	27,003 1 9	41 1 9	26,962 0 0
125	Scenery Preservation ...	17,275	5,872 12 8	107 7 6	5,765 5 2
	Totals ...	341,851	343,906 12 5	44,393 13 4	299,512 19 1
	Consolidated Fund, Unauthorised Account		935 19 7	359 11 8	576 7 11
	Special Acts Deposit Accounts, &c. ...		58,595 16 7	...	58,595 16 7
	Land for Settlements Account (including votes 126 and 127)		598,253 16 3	8,583 10 5	589,670 5 10
	Cheviot Estate Account ...		8,881 2 8	...	8,881 2 8
	Maori Land Settlement Account (including vote 128)		4,802 17 4	1,789 14 5	3,013 2 11
	Hauraki Plains Settlement Account ...		11,672 5 6	...	11,672 5 6
	Totals { ...		683,141 17 11	10,732 16 6	672,409 1 5
	Grand totals ...		1,027,048 10 4	55,126 9 10	971,922 0 6

CONCLUSION.

May I, in conclusion, express the honour conferred upon and the pleasure given to the Department by having the Prime Minister as its Ministerial head. I think I am right in saying that it is the first time that any Prime Minister has taken the portfolio of Lands with his other duties. It also enables me to bring under your immediate notice the faithful and loyal service rendered by all the Commissioners of Crown Lands and their seconds in command, together with the whole of the staff of surveyors, draughtsmen, and clerks, and, last, but not least in rank or service, the good work done by the Receivers of Land Revenue and the Crown Lands Rangers. The discipline of the whole Department is admirable, and personally I am more than grateful for the help I obtain from all ranks and grades in the service.

APPENDICES.

APPENDIX I.—SETTLEMENT OF CROWN LANDS.

EXTRACTS FROM THE REPORTS OF THE COMMISSIONERS OF CROWN LANDS ON SETTLEMENT OPERATIONS DURING THE TWELVE MONTHS WHICH ENDED ON THE 31ST MARCH, 1909.

AUCKLAND.

THE SETTLEMENT OF CROWN LANDS.

In reviewing the statistics of the Department so far as they relate to its operations during a period of twelve months, it is interesting to compare the figures with those of the corresponding previous period. It will be noticed that there is a difference of five only in the number of selectors who have been allotted sections, compared with the number that were selectors during the previous twelve months. The area disposed of is, however, less by 20,000 acres than it was in the former year. In the interests of closer settlement it is satisfactory to know that whereas 444 selectors took up 126,523 acres last year, this year a total of 439 divided 106,320 acres between them. There is also another item in the comparison which should be noted, and that is the increase in the gross revenue of the district. In the previous twelve months the total sum amounted to £109,836, and the total this year comes to £124,476, being an increase of £14,640. Therefore, so far as the transactions of the Department for this year are concerned, if there is any tightness in the money-market it has not materially affected the revenue derived from the operations in this district.

CONDITIONS AND PROGRESS OF SETTLEMENT.

There is no doubt that the conditions and progress of settlement depend very largely on the state of the road access. To those unaccustomed to the difficulties which attend the pursuits of a pioneer settler, it is a matter of the greatest surprise that so much is accomplished in the face of the hardships endured by those who go into the backblocks. Collateral with the pushing-on of roadworks is the progress of the settler, and in districts where horse-roads have been widened out for wheel traffic the whole face of the country is being changed; bush land is giving place to grass, and tents and rough huts to comfortable cottages. There is another feature which marks the demand for land and the progress of settlement in this district, and that is the attention being paid to the development of what is known as the poor lands of the far north. In travelling through that district it is a matter for comment that many of the settlers are men who have lived for many years in the southern latitudes of the Dominion. Much of the land has remained unoccupied, neglected, and unappreciated by those whose homes were in the vicinity or whose business brought them into the locality. It is probable that the scarcity of land in other parts has directed attention to the district referred to, but, be the reason what it may, settlers from the south are acquiring the lands, and are astonished that they should have been so long despised as unsuitable for settlement.

RANGERS' REPORTS.

The amount of miscellaneous work required of Crown Lands Rangers has been commented on in previous reports, and this year the enormous volume may be gauged when it is seen that the number of miscellaneous inspections made by Rangers covered not less than 266,860 acres. The total number of inspections of all kinds was less than the number made in the previous year, but this is counterbalanced by the fact that, although a less number of individual inspections were made, the area covered in these inspections exceeded that of the former year by 117,155 acres. The statutory inspections continue to show that in *bonâ fide* settlement the selectors effect improvements far in excess of the value which the law demands. It is also an encouraging sign that, whereas there were 527 defaulters during the previous year, this year the number did not exceed 395.

GENERAL.

From personal observation in the localities I have visited, and from the information I have received from officers who have to travel all over this land district, I am convinced that, notwithstanding the difficulties attending pioneer settlement, the selectors as a whole are more than holding their own. Owing to the progress that has been made in opening bridle tracks and widening existing tracks into cart-roads, and the gradual linking-up of the roads, the few settlers who are behind with their improvements and not residing will no doubt now be able to fulfil their conditions. The great climatic variations common to so large a district have a corresponding effect upon the nature of the operations of the settlers. In the north fruit-growing and viticulture are established industries increasing in importance from year to year. The gum-lands have also become increasingly appreciated as a valuable asset, and one which has yet to be further developed. The gum-diggers are very anxious to have the industry recognised at its full import-

ance, and are conferring together for the protection of their interests. Sawmilling is general throughout. In travelling through the district it is very noticeable that logs are being milled which a few years ago would never have been brought into a mill. In fact, in some instances areas which many years ago had been abandoned as worked out are now being reworked, and the remaining timber taken out. Even small trees are now cut and milled. But we must come to the dairy farms, the raising of stock, and the cropping of our farm lands to get a correct idea of the principal occupations of the large number of Crown tenants now on the books. Dairy farming has been and will continue to be a very valuable source of revenue to the farmer struggling along to bring his farm into such a state as will provide him with a comfortable income. During the previous year the extensive bush-fires which threatened to ruin many settlers were actually, owing to assistance rendered by the Government in the supply of grass-seed, a benefit to those affected. The whole of the country overrun by the fires is now looking remarkably well, grass is plentiful, and the prospects are most encouraging. In many places there was a thorough clean-up of the land, so that with the opportune assistance rendered in the supply of grass-seed many years of labour were saved. The stock-carrying capacity has increased at least 25 per cent. The increase in grassed area, and the corresponding increase in stock, has necessitated the erection of further creameries, and the country generally has the appearance of being in a very prosperous state. A feature of the dairy industry is the improvement apparent in the class of dairy stock. This will, of course, have a marked effect in the future upon the output. There is also an increase in the number of home-separators in use. The adoption of home-separating has very obvious advantages. It removes the necessity of a daily visit to the factory, and the consequent additional labour and loss of time, and it enables the farmer to feed his calves with fresh milk twice daily, whereas the milk returned from the factory is often sour. In passing through the district it will be noticed that there is a fine class of young stock being bred, but at present the prices ruling at the sales have not been satisfactory. Another factor which has affected the results of sales is that the auctioneers are not disposed to allow any latitude for payment, and ready cash is not always available. Those settlers who have cut down large areas of bush have been fortunate in securing good burns. The area of bush felled would, no doubt, have been greater had there been more labour available. Many instances were reported by settlers, and the Rangers confirmed the statements that inability to effect improvements was due to the scarcity of bushfellers. Maize, oats, turnips, potatoes, and other crops have all yielded satisfactory results during the past season, and in the Bay of Plenty the maize-crop was the largest known for some years. There has been a brisk demand for land in all districts, and those who are successful in land-ballots consider themselves fortunate. The Department has established a policy of encouraging the thrifty, hardworking settler, often encumbered with difficulties, by dealing leniently with those who, through unfortunate circumstances, have been unable to fulfil the law's requirements. It also has adopted a rigorous course in the case of those who have apparently no intention of becoming farmers, and who take up land to suit some transient circumstance, such as proximity to a contract, or who desire to hold out sufficiently long to benefit by the increase in value caused by energetic neighbours and then sell out. Wherever *bonâ fide* settlers are to be found the presence of the speculator is a hindrance to the progress of settlement, and the Land Board has on many occasions been asked to deal with such persons and remove a disability from the locality. The fact that there were 132 defaulters less this year indicates two things—viz., the existence of a majority of successful *bonâ fide* settlers, and the fact that the Land Board has been successful in insisting on a fair fulfilment of the obligations incumbent upon those who take up Crown lands, thereby purging the records of many who were the cause of drawbacks in the district.

From this general review of the state of the selectors in this district and their occupations and progress it will be seen that, taken as a whole, the statistics, together with the results of personal observation, go to show that even if there are difficulties such as bad roads, scarcity of labour, low prices ruling for stock, and other tribulations, there is every reason to believe the settlers are making substantial progress, and bringing their farms rapidly to the self-supporting stage. I have no fear in stating that the signs of progress indicate that the future before this district is one the success of which is not at present fully appreciated nor adequately anticipated.

LAND BOARD.

There were twenty meetings held during the year, and at these 445 applications to transfer were considered, nine being declined. The mortgages approved numbered sixty-eight. The Board paid a visit of inspection to the Te Akau Block, in the Raglan County, lately purchased from the Natives. On the same trip it also inspected the Tautari and Rewi Settlements, in the Waikato.

FORFEITURES AND SURRENDERS.

The area which has reverted to the Crown under this heading is considerable, but in reviewing the causes it must be remembered that many cases where forfeiture has ensued have been at the selector's own request. The possibility of an applicant who has spent considerable sums in inspecting land prior to application being thrown out in the ballot has resulted in applicants, in many instances, applying first and then, if successful, inspecting what they have secured. In many cases, although the land drawn may not be poor land, it may not, for some personal reason, appeal to the successful applicant, and he therefore applies to forfeit. But this cause does not account for the whole of the forfeitures. There are many who have been for periods extending over years wilfully neglecting to carry out their obligations, but making plausible requests for time. Such cases as these have been thoroughly looked into in the interests of settlement, and where there could be no doubt there was an absence of *bonâ fides*, forfeiture has ensued. That there have been only

one or two appeals is proof that when the Department faced the position the accuracy of its judgment in re-entering has been substantiated.

REBATES OF RENT.

There was an increase in the number of selectors who secured a rebate for prompt payment, which is an indication that money was circulating in this district, enabling the selectors to reap the benefits accruing from payment at the due date.

ARREARS OF RENTAL.

Another proof of the prosperity of the selectors is that the number in arrear this year has fallen to 259, as against 409 for the previous twelve months. The question of arrears was one which the Department had to face in a businesslike manner, obtaining on the one hand a compliance with the conditions of settlement, and at the same time exercising discretion, to avoid indiscriminate application of pressure, which would bear heavily upon the poorer settlers struggling to make homes in the backblocks.

CONVERSIONS OF TENURE (UNDER SECTIONS 192 AND 193 OF "THE LAND ACT, 1908").

There has been a total of twenty applications to convert to renewable lease. Of this number there is only one applicant under the lease-in-perpetuity system, one under the village-homestead system ("Land Act, 1885"), ten under Hauraki pastoral lease, and eight under mining district land occupation lease.

PURCHASE OF FREE-SIMPLE OF LEASE IN PERPETUITY (UNDER SECTION 177 OF "THE LAND ACT, 1908").

Thirty-three applications have been received since this section came into force. In the majority of cases where the valuations have been made there has been an increase in the value. In two cases this increased valuation was objected to by the lessees, and on the matter being referred to arbitrators, in accordance with the regulations, the objections were upheld.

"THIRDS," "FOURTHS," AND "HALVES."

There has been a considerable increase in the amount paid over under this heading by the Receiver of Land Revenue to local bodies. It is a feature of the proposals by the local bodies that quite the major part of the money received is devoted to maintenance of existing roads. The Land Board has, of course, no power to interfere with the expenditure, except to see that the proposals embrace the construction or maintenance of roads and bridges leading to or opening up the land from which the money accrues. Settlers frequently call upon the Land Board to bring local bodies to task for not expending the money in the proper places, whereas there is no penalty beyond that mentioned in clause 151 of the Act. It is a question for consideration whether the law should not be amended to provide that the local body shall every year supply a schedule showing the proposals as approved by the Land Board and the works as carried out.

CORRESPONDENCE.

There were 27,088 letters, 1,167 packets, and 1,662 telegrams received, and 38,847 letters, 10,321 packets, and 1,794 telegrams despatched, making a gross total of 80,879. The approximate number of new files started was 2,900.

RECEIVER OF LAND REVENUE.

In the Receiver's Office, 10,059 ordinary revenue receipts and 185 provisional title receipts were issued, covering a gross revenue of £124,476 4s. 8d., an increase on the previous year of nearly £15,000. In the Deposit Account 1,872 receipts, for a sum of £25,536 15s. 4d., and 1,004 cheques for refunds and disbursements, were issued. The sum of £15,056 10s. 1d. was paid into the Local Bodies' Account, the disbursements from that account amounting to £19,900 10s. 1d., by 141 payments to eighty-four local bodies.

CONCLUSION.

I have to acknowledge the assistance which has been rendered me by officers of this branch of the Department. Coming into the district as a stranger, I have found that loyal support was accorded me by those with whom I have been associated. In leaving to return to Wellington I shall carry away pleasant recollections of my brief stay in the Auckland District.

JOHN STRAUCHON,

Commissioner of Crown Lands.

HAWKE'S BAY.

LANDS OPEN FOR SALE OR SELECTION.

The area of Crown lands opened for sale or selection during the year was 62,982 acres. Of this area, 50,353 acres were offered for the first time, the balance, of 12,629 acres, being land previously offered. Included in the former may be mentioned the Piripiri and Waimarama Blocks.

There were 2,294 acres dealt with under "The Land for Settlements Act, 1908," the principal portion of which represents additional sections at Raumati, Hatuma, Lindsay, and Te Arai.

SMALL GRAZING-RUNS.

Renewed leases were granted for a further term of twenty-one years, at greatly advanced rentals, over nine holdings, of an area of 12,676 acres.

INSPECTION AND PROGRESS OF SETTLEMENT.

Owing to the stringency of the money-market, the settlers have had to considerably curtail their expenditure, and, as a consequence, the area of bush felled for the year was greatly reduced; however, in spite of this, a healthy spirit of prosperity appears to permeate the whole district. The value of the improvements effected by selectors is still largely in excess of the amount required by the conditions under which the lands are held. There was keen competition for all lands opened for selection during the year, and most of those who were successful at the ballots are very well satisfied with their present position and prospects.

In the Gisborne district the two freezing-works were unable to cope with the supply of fat stock offered. It is pleasing to note that there is every prospect of a freezing-works being started at Tokomaru Bay, and this will not only be a great boon to the surrounding districts, but will also relieve the two freezing-works already established at Gisborne.

The total number of defaulters for non-residence is seventy-seven; a great number of these are single women, who under the condition of the Act can claim exemption from personal residence, while in some cases it is owing to the isolated position of their selections, and the want of improved access, which will shortly be remedied by the construction of the necessary roads.

The total number of inspections made by the Crown Lands Ranger for the Napier portion of the district was 416; this includes 207 special inspections, covering an area of 59,476 acres. The total value of improvements as required by the Act is £30,452, and the value of improvements effected £72,970. The number of stock was 30,597 sheep, 3,662 cattle, 419 horses, and 815 pigs.

The Crown Lands Ranger for the Gisborne portion of the district reports that he inspected 279 holdings. The total value of improvements required was £106,496, the value of those effected being £457,878.

ARREARS OF RENT.

Considering all the disadvantages the tenants have been subject to in various ways for the last twelve months, it is very gratifying to this Department that so few arrears of rent exist; taking the number of tenants as a whole, but $2\frac{1}{2}$ per cent. are in arrears, amounting to a sum of £565 11s. 6d., which from an annual rental of £81,308 is highly creditable.

FORFEITURES AND SURRENDERS.

Since the introduction of the system of examination of all applicants applying for land, insuring thereby a better class of settlers, remarkably few forfeitures and surrenders have been dealt with. From the permanent tenures only five holdings were resumed and four surrendered.

TRANSFERS.

The number of transfers this year shows a decrease of twenty-nine from last year. The main reason for this is due to the action of the Land Board in enforcing compliance with the conditions of the Land Act—that is to say, occupation of fulfilment of conditions for a period of two years—thus reducing the speculative tendency.

DISPOSAL OF REMAINING CROWN LANDS.

It is proposed to offer for selection about 54,000 acres, included in which is the Tamaki Block, situated near Dannevirke, containing 4,397 acres, which is now under survey, and will probably be open for selection late in the spring. This land is well adapted for dairying.

The remaining portion of Piripiri Block, 3,177 acres, will be available at the end of the year, when the existing timber-cutting rights will expire.

It is proposed to dispose of portions of the Aorangi Block, of 831 acres, to the adjoining settlers in the Mangatahi Settlement, in order to get better fencing boundaries and water-supply. The balance of the area will be thrown open under the optional system.

In the Nuhaka district is an area of 2,248 acres, being an expired small grazing-run which the Land Board retained for subdivision for settlement. The land is improved, and is good sheep country, which will be offered in two allotments for selection.

In the Ngatapa Survey District an area of about 15,000 acres is now under subdivision for closer settlement; this block was originally included in Pastoral Run No. 47, held under license by Messrs. Hutchinson Bros. The country is at present covered with forest, which, when cleared, will make good sheep-farming country, and will be readily taken up. The projected line of railway between Gisborne and Rotorua will pass within a few miles of this block, and, from the present rate of progress in the extension of the present line in that direction, it will not be very long before the settlers in this locality will be within easy reach of railway-communication with Gisborne.

There is upwards of 19,000 acres, divided into areas varying from 2,000 to 7,000 acres, which, when ready for disposal, will be offered as small grazing-runs. These lands are situated in the Hikurangi, Tuahu, and Tutamoe districts.

RESERVES, FORESTS, ETC.

During the year under review 892 acres has been permanently reserved. Out of this area 816 acres was set apart as educational endowments, and the balance for miscellaneous purposes.

DEPARTMENTAL.

The amount of office-work is steadily increasing, owing to the continual advance of settlement, as will be seen by the following details. The volume of correspondence totalled 29,199 letters, &c. The total value of stamps used on departmental business amounted to £162 7s. 9d. Vouchers dealt with represent an expenditure of £23,308; in addition to which the usual numerous notices, dispatches, &c., of the routine description were dealt with.

Several land-ballots have been held during the year, of which special mention can be made to those of the Piripiri Block (held at Dannevirke), Waimarama (at Hastings), and Tutamoe and Moanui Blocks (at Wairoa), the number of applicants in each instance being clear proof that the demand for Crown lands is still very keen; and it is pleasing to note that the applications were confined to persons possessing the necessary qualifications for admission to the ballot.

During the year the Land Board held twenty-two meetings, including several special meetings held for the examination of applicants for lands referred to in the above remarks.

In closing this report, which will be the last I shall have the honour of preparing, owing to my retirement from the service, I desire to express my sincere thanks to all the officers of the Hawke's Bay staff for the manner in which they have carried out their respective duties, and to assure them that I fully appreciate the way in which they have assisted me in conducting the business of the office: and in parting with them I desire to tender them my best wishes for their future advancement in the service.

HENRY TRENT,
Commissioner of Crown Lands.

TARANAKI.

SETTLEMENT OF CROWN LANDS.

The new transactions show an increase in number of selectors, but less area, than last year, the principal sales being town lands for cash: and the selections under leasehold tenure being occupation licenses with right of purchase and renewable lease. It is noticeable that whenever the option is given, the occupation-with-right-of-purchase tenure is the one generally chosen.

The last of the deferred-payment holdings was converted to fee-simple, but the conversions from occupation with right of purchase to freehold are not numerous, considering the number of holdings eligible for that purchase.

The revenue shows an increase of £2,568, principally from cash sales and rents of leases in perpetuity, the latter being caused by transfers of land upon which the rent had been originally conceded under section 127 of "The Land Act, 1908."

Up to the present date nine leases-in-perpetuity tenants have given notice of their intention to acquire the freehold of their leases, but, the majority of them being held subject to section 135 of "The Land Act, 1908," the right of the tenants to acquire the freehold is awaiting the judgment of the Supreme Court.

CROWN LANDS OFFERED FOR SELECTION AND DISPOSED OF.

The rural lands offered under optional conditions comprised eighteen sections, of a total area of 11,363 acres, scattered over the land district, of which only one section, of 521 acres, remains unselected.

Under the renewable-lease tenure nineteen sections of national endowment land in the Ohura and Piopiotea West Survey Districts, comprising an area of 14,747 acres, were offered, and all taken up.

Thirty-five allotments in the Spotswood Settlement and one in the Huinga Settlement, comprising a total area of 461 acres, were reoffered, but only two allotments, of a total area of 10 acres 3 roods 10 perches, were disposed of.

The demand for rural land is still so great that a block is no sooner opened than it is eagerly applied for.

In the Towns of Mangaroa and Aria and Villages of Matire and Tatu eighty-two allotments were offered, and quitted at very satisfactory prices.

The leases of seven subdivisions of the Opunake Railway Reserve, one recreation reserve near Eltham, and Native-school sites at Mawhitiwhiti and Pariroa, were offered and disposed of, and a section of 2 acres near Hawera was sold by public auction at the upset price.

CONDITION AND PROGRESS OF SETTLEMENT.

The Ranger for the northern portion of the district reports on the settlement around Tongaporutu, and states that the settlers appear to be holding their own, having taken every opportunity of extending the areas of their farms, either by taking up adjoining land or selecting other land close by. Most of them in that locality depend upon dairying for their living, though the country is not all suited for that purpose. There are portions of this locality which would give better returns of produce when the roading facilities have been improved.

Eastward from Tongaporutu to Mangaroa the new country continues to make good progress, and yielded an increase of exported produce. In the more northern portion of the district the progress has been very steady, the last sale of stock having given double the results of two years ago. There is every indication that this portion of the country will export a considerable amount of dairy produce in the near future: indeed, there are already three butter-factories established, which, owing to various reasons, are not yet working to their full capacity. The few small sawmills in this part of the district have been unable to cope with the demands made upon them. Postal and telephone services are being extended to the outlying settlements, and naturally will prove of the

greatest benefit. The improved-farm settlements established in the portion of the district now referred to have made excellent progress, and will undoubtedly prove a great success.

The Ranger for the central and southern portions of the land district reports that generally the progress has been good. The present year has been a prosperous one, and the majority of settlers have made improvements in excess of the requirements, though a greater area of bush would have been felled had the necessary labour been available.

The Stratford-Ongarue Railway is being pushed on, and this, in conjunction with the four miles of new metal on the Ohura Road, will add materially towards making things easier for the settlers in the country affected thereby.

In other portions of the district as well the steady progress of road-formation is being maintained, thus tending to open up the country, and improving the lot of the pioneer settlers, in bringing them into closer touch with the more settled parts.

The general prospect for the dairying portion of the district seems fairly bright, though there has been a fall in the price of butter. Most of the factories are still running, though one or two have closed down on account of bad roads and decreased yield. The sheep and cattle farmers have had a very fair year, and, though there has been a tendency towards lower prices for stock in the latter end of the year, wool has gone up, and there is a good prospect of beef and mutton doing the same.

The members of the Land Board made a general tour of inspection of the newly settled country in the northern portion of the district, which, no doubt, had the best effect, not only in making the members acquainted with the country with which they have to deal, but the experienced advice they were able to give will tend to strengthen the feelings of confidence between the Board and its tenants.

On various occasions during the year I made personal inspections throughout the district, principally in the more newly settled localities.

ARREARS OF RENT.

The position remains in a fairly satisfactory state, a reduction having been made in the arrears, exclusive of the current instalment, while including that instalment some of the tenures show a small increase.

FORFEITURES AND SURRENDERS.

The district has been exceptionally fortunate this year in the class of tenants who have taken up land, the number of forfeitures being half that of the previous year. In one instance the forfeiture was the outcome of utter neglect of improvements and insufficient stocking. The forfeiture of selections of more recent date are due to the difficulties of access, or apparent unsuitability of the land to the particular requirements of the selector. If, however, a forfeited section is in any way attractive at all it is the subject of great competition, and finds a ready disposal.

DISPOSAL OF REMAINING CROWN LANDS.

The following blocks will be ready for offering during the coming year, under the ordinary conditions of the Land Act: 1,370 acres in the Totoro Survey District, near the Mokau River; 1,000 acres in the Piopotea West and Rangi Survey Districts; 3,370 acres in the Tangitu Survey District.

It is confidently expected that surveys will be finished to enable the additional blocks enumerated below to be offered during the year: 2,000 acres in Tangitu Survey District; 5,500 acres in Omara Survey District; 5,000 acres in Mahoe Survey District: total, 18,240 acres.

In addition to these blocks, I anticipate that about 10,000 acres of forfeited sections will be reoffered.

With regard to national endowment land, there are at present 5,798 acres in Mahoe and Pouatu Survey Districts and 5,031 acres in Totoro Survey District ready for offering, and the survey of 4,000 acres in Rangi and Piopotea Survey Districts almost completed.

It is expected that another 2,000 acres in Tangitu Survey District will be completed in time to be opened for lease during the year, making a total area of 16,829 acres.

OFFICE-WORK.

The correspondence inwards and outwards, circulars, applications, parcels, &c., totalled 21,169; cheques drawn for wages, &c., 787; vouchers dealt with, 775; transfers recorded, 252; receipts for rents, refunds, &c., 3,404; provisional titles issued, 71: total, 26,458, a decrease of 731 documents on last year's business. The office staff, however, has been kept fully employed, and has responded readily to any demands for extraordinary work that had to be performed.

FRANCIS SIMPSON,
Commissioner of Crown Lands.

WELLINGTON.

PROSPECTS AND PROGRESS OF SETTLEMENT.

Although I have not been able to visit personally the whole of the ordinary Crown lands settlements in this land district, I am satisfied, from the visits I have made, and also by the very full reports of the different Crown Lands Rangers, that our Crown tenants as a body are establishing themselves solidly on the land; whilst in the older districts the days of bad road and tracks are almost things of the past, in most cases dray-roads, many of them metalled, taking the place of the

old order of things. Of course, the newer settlements along the Main Trunk Line and Upper Wanganui districts are still in the pioneer stage, where settlers are struggling with the earlier difficulties of settlement; but, broadly speaking, with these exceptions, the life of the man on the land bears no comparison with what it was even ten years ago.

Wherever one travels the appearance of the homestead and surroundings show that the occupants are prosperous, and doing well. Probably progress is most marked along the west coast in the following localities: Horowhenua, Pohangina, Apiti, Rangiwaea, Hunterville, Mangaweka, and Taihape districts; whilst on the east coast, settlers in the neighbourhood of Pahiatua, Makuri, Pongaroa, and Eketahuna may be specially mentioned as evidence of what can be achieved by men who stick closely to the land; but the progress throughout the entire district has been so steady and sound that it is almost invidious to draw comparisons, particularly as circumstances govern so many individual cases as well as localities.

BUSH-FIRES OF 1907-8.

In the course of travelling through the land district at various times I have been much impressed by the way in which the settlers have, as a body, recovered from the severe check the fires of last year undoubtedly gave to many of them. The great bulk of our tenants are, however, now in a better position than they were before the fires—their grazing areas have been largely increased, and considerable areas, largely the aggregated results of previous “bad burns,” together with rough useless faces, have in many instances now become money-earning.

LANDS OPENED FOR SALE OR SELECTION.

The total area of Crown lands offered during the year was 28,366 acres, which, added to the area standing open on the 1st April, 1908—viz., 273 acres—made a total of 28,639 acres available for selection. Of the area of 28,366 acres placed in the market, 23,951 acres was offered for the first time. The principal operations during the year were as follows:—

Portion of the South Waimarino (Ruatiti) Block, subdivided into 21 lots, and comprising an area of 14,178 acres, was offered on the optional system, with exemptions from rent and rates for a period of four years, under section 127 of “The Land Act, 1908.” This was the only land in this district offered during the year subject to this exemption. Portion of the Awarua Block, in Ruahine District, of an area of 2,755 acres, was offered on the small-grazing-run system. The Carrington Settlement, comprising 5,120 acres, near Carterton, subdivided into 28 lots; and the Hawtreys Settlement, comprising 127 acres, near Johnsonville, subdivided into 102 lots, were offered under renewable lease under “The Land for Settlements Act, 1908.” With the exception of the Hawtreys Settlement, all the lands mentioned above were eagerly competed for. Eight workers’ dwellings in Coromandel Street, City of Wellington, and three in Heretaunga Settlement, Petone, were selected on dates of offering.

The following new village settlements were placed in the market: Ohakune, 545 acres, subdivided into 74 homesteads; Rangataua, 125 acres, 24 lots; Horopito West, 303 acres, in 68 lots; Kakahi Village, 11 lots; Pukeroa Village, 4 lots. With the exception of the Horopito West, all the above settlements have been disposed of.

Although the area offered during the year is smaller than usual, the revenue for new lands is considerable, amounting as it does in the case of lands selected on the cash system alone to about £8,145. This result was brought about principally by the recent sales of lands in townships along the Main Trunk Railway, which were offered by auction as follows: Ohakune Township, 54 lots; Rangataua Township, 53 lots; Horopito West, 82 lots; Owango, 44 lots; Kakahi Village, 20 lots; Piriaka Township, 28 lots; Ninia Township, 4 lots; Raetihi Township, 14 lots. Of the above amount, £1,550 was realised by the disposal to adjoining owners, under section 131 of “The Land Act, 1908,” of three small lots on Te Aro foreshore, City of Wellington.

When offering the above-mentioned townships, the opportunity was taken of the power given by section 124 of “The Land Act, 1908,” to open for selection a considerable number of the sections on renewable lease for thirty-three years. The result has been very successful, many applicants choosing this tenure in preference to purchasing sections available for cash. The lands so offered were 42 lots in Rangataua Township, 67 lots in Horopito West Township, and 39 lots in Owango Township.

The opening of the Main Trunk line has given an immense fillip to settlement along the central portion of the land district. Settlers seemingly, notwithstanding the slump elsewhere, are in good heart, as new markets are being opened up to them.

The total number of statutory land applications received during the year was 995.

On the 31st March last the settlers on the books numbered 3,496, whilst the total new transactions for the year, including cash, amount to 30,302 acres, selected by 380 persons. This shows that, notwithstanding the depression of the past year, whatever diminution has taken place in the public’s demand for private lands, there is still as great a competition as ever for all Crown lands placed in the market for disposal.

During the year the expiring leases of fourteen small grazing-runs, comprising an area of 13,410 acres, were renewed for further terms of twenty-one years, under section 209 of “The Land Act, 1885,” at new rentals aggregating £987 15s. 2d., as against £398 18s. previously paid. This large increase demonstrates not only the rise in rentals which has taken place, but also the extra value to the State of a twenty-one years’ revaluation. Renewals of their leases have been offered to eleven tenants, whose runs comprise a total area of 7,631 acres deemed to be unsuitable for further subdivision, and whose leases will expire during the coming year. Notice of resumption has been given in the case of one run of an area of 369 acres, situated near Pongaroa.

INSPECTIONS AND RANGERS' REPORTS.

The total number of the inspections made by the Rangers in the east coast district amounted to 883, covering an area of 111,310 acres, being a decrease as compared with the figures of last year. The improvements required to be effected amounted to £46,117 in value, whereas an amount of £127,501 was actually spent, being £81,384 in excess of requirements.

On the west coast district the two Rangers made 414 inspections, the area being 125,591 acres. The value of the improvements required to be effected was £31,419, but £114,326 was actually expended, being a surplus over requirements of £82,907.

FORFEITURES AND SURRENDERS.

These were very light, being only four altogether, which indicates a fair compliance with Land Act requirements, and also contentment on the part of the tenants.

"THIRDS," "FOURTHS," AND "HALVES."

The allocation under "The Land Act, 1908," of the proportion of rent from Crown lands under various systems of tenure, and of timber and flax royalties, has been made, and the sum of £12,794 17s. 9d. has been paid to the respective local authorities for expenditure on approved proposals for roadworks and under hypothecation certificates. This shows a considerable increase over last year's payments.

On the 31st March, 1909, the sum of £9,827 11s. was in the Receiver's Deposit Account at credit of the various local bodies in the Wellington Land District.

A change has been made in the method of dealing with local bodies' proposals, with a view to facilitating the work. Until quite recently settlers were asked to give their consents in writing to the proposed expenditure of "thirds" accrued on their holdings. These being obtained, the proposals were examined, and submitted to the Land Board for consideration and approval. Settlers were thus able to delay the expenditure by refusing their consent, frequently without good cause, and I have therefore dispensed with this requirement. Proposals are now being examined on the ground by an officer of this Department, and if they are found to be fair, having due regard to the claims of the settlers concerned, they are submitted at once to the Land Board for approval. This arrangement has proved very satisfactory, and promotes settlement by helping local bodies to give better access to tenants.

CLERICAL.

During the year 15,000 letters were received, and 45,820 were despatched. These latter included letters, telegrams, rental and other notices, lithos, plans, &c., the grand total received and despatched being 60,820. There were 797 cheques, amounting to £7,169, drawn on the Imprest Account, the total number of vouchers dealt with being 1,512, for £46,658.

In conclusion, I have to express my thanks for the able and loyal assistance I have received since I took charge of this district on the 1st May last from the Chief Clerk and all the subordinate officers. My duties, coming into a new district again, have been much lightened by the aid always cheerfully given.

JAMES MACKENZIE,
Commissioner of Crown Lands.

NELSON.

CONDITIONS AND PROSPECTS OF SETTLEMENT.

The year just closed has been a satisfactory one, both as regards the area of land disposed of to new settlers and the improvements effected on lands already selected. The seasons were propitious for bush settlement, consequently a comparatively large area of forest was felled and burned off. The activity with which the year opened is unabated—the demand for land continues, and the prospective settler is of a good type. Evidence of the general progress of closer settlement in this district is furnished by the clearings noticeable on the recently selected bush lands, and the extension of the grazing areas on the older selections, the forest-clad hills having given place to green pastures. This is very gratifying, for it is evidence of something done under rather adverse circumstances. The peopling and profitable occupation of backblocks situated as are those of Nelson, distributed in comparatively isolated areas over a wide stretch of country, and many miles distant from a railway-station or seaport, is a problem in the solution of which the chief factors are patience and strenuous labour on the part of the selector and facilities for settlement in the nature of road and railway construction afforded by the State. That these factors now obtain in this district to a reasonable extent is, I think, beyond doubt. Here and there a selector falls by the way. He is, however, in most cases one who expects the State to do everything for him, forgetful of the fact that the State cannot furnish brains for the incompetent, industry for the indolent, or perseverance for the half-hearted. The weeding-out process is applied carefully and judiciously from time to time to undesirables who fail from one cause or another, with the result that the *personnel* of the selectors is improving, all the vacated areas being readily selected by men of a good stamp; thus the foundation of settlement is being laid firm and solid. A pronounced steadiness, satisfaction, and optimism characterises the new settlers, and it is therefore safe to assume that the year just entered upon will see an advance on the preceding year. This prediction may be hazarded in respect to the bush settlements in the Central Buller. These settlements extend

from the Owen River to the Maruia, covering an area of 150,000 acres. For many years this portion of Nelson district was looked upon as useless except for mining or scenic purposes, but now it is winning its way into favour as a desirable place for settlement. Expectations respecting its capabilities for pastoral purposes when cleared have been fully realised. The results achieved by the pioneer selectors afford a stimulus to further improvement. The grass-producing qualities of the land in an ordinarily good season are surprising—the growth is prolific. For both cattle-raising and sheep-grazing country, and, at a later date, dairying, I doubt if there is better in the Dominion. It is, therefore, reasonable to assume that in a few years, with improved facilities for transit by railway to Port Nelson and the establishing of the Nelson freezing-works on a firm basis, an increase of the producing population and in flocks and herds may be relied upon.

The progress which has marked the recently established settlements in Nelson is having its effect in many directions upon the older settled portions of this district. The advent of new settlers on Crown and private lands with new ideas has done much to improve the methods of cultivation formerly obtaining. Farmers are moving off the old track—they are commencing to utilise the land to the best advantage. The ancient prejudice against scientific farming is dying. The establishing of freezing-works is the latest indication of the spirit of enterprise amongst the farming community. The fact that an ocean liner has berthed at Nelson wharf, and taken 15,000 carcasses of frozen mutton, is evidence that the possibilities of the district are becoming seriously realised.

LANDS PROPOSED TO BE OPENED DURING 1909-10.

It is proposed to offer for sale or selection during the current year an area of 51,900 acres of unsurveyed lands. The following are brief descriptions of the blocks:—

Howard Block (27,000 acres ordinary Crown lands and 3,000 acres National Endowment).—This block contains about 30,000 acres of forest country, above the average in quality. Twenty thousand acres of the area stretches over the basin of the Howard River; the balance, 3,000 acres, comprises the basins of several streams flowing into the Buller River. Situate within ten miles of the Hope Junction, on the main coach-road Nelson to Westport.

Extension of Lee River Block (National Endowment).—This block contains about 5,500 acres, and is practically an extension of the Lee River Block already disposed of. The land is rough and hilly, forest-clad, but suitable for sheep-grazing when stripped. It has a special value in that it is situated in Waimea County (where freezing-works are now in operation), thirty miles from the City of Nelson.

Extension of Wairoa Forks Block (National Endowment).—This block adjoins the Lee River above described, and possesses the same characteristics. It contains about 7,000 acres.

Anatoki Block (National Endowment).—This block is situated in the Takaka County, about four miles and a half from the Port of Waitapu, and about three miles and a half from the Village of Takaka. It contains 4,400 acres of hilly forest-clad land, principally birch intermixed with scattered rimu.

Waimea Block (ordinary Crown lands).—This block contains about 5,000 acres. It is situate at the head-waters of the Serpentine and Miner Creeks, about twenty-three miles from the City of Nelson. The country comprises undulating and broken land, suitable for grazing when cleared and sown.

INSPECTIONS BY CROWN LANDS RANGERS.

The Crown Lands Rangers inspected 492 holdings during the year. The area inspected covers 195,615 acres. The value of the improvements required is £23,688. The value of the improvements actually made is £44,671. Eleven hundred acres of forest was felled on lands selected during the year; 8,400 acres was felled during the year on lands selected in previous years. The total area felled on Crown leaseholds up to 31st March, 1909, is 50,617 acres.

The Crown Lands Ranger who inspected the northern portion of the district reports as follows: During the year 1908-9 I visited and inspected 366 leasehold sections in North Nelson, comprising an area of 170,561 acres. The value of improvements required thereon by law was £21,399, and the value effected £38,303. Eighty-five selectors had not complied with the improvement conditions of their leases, and twenty-five were non-resident. In addition to the above, I inspected and reported, for the information and guidance of the Land Board and Warden, on 27,000 acres. I also made sixty-four miscellaneous inspections and reports respecting timber, flax, reserves, &c.

Regarding settlement in this district, it has undoubtedly progressed during the past year, both as regards freehold and Crown lands. The demand for freehold land has not been so keen as in former years, while that for Crown lands has been very marked. As each block has been thrown open for selection the applications in most cases covered more than the area available, and those that were successful have already begun to improve their holdings. No doubt this fresh enterprise is due to the freezing-works which have been established in the district. These works were completed at the end of January, and since that date sixteen thousand sheep have been frozen, thus giving the farmers splendid encouragement to cultivate their lands and improve their stock, to command a better price and compete with other districts. I have not the slightest hesitation in saying that this district has a big future before it, and during the course of a few years it will be very productive. Land has been opened up more speedily these last few years, and wherever opened up good roads have been made thereto.

During my visits of inspection to Central Buller I have observed improvement in the cultivation of the land. Where a few years ago nothing more than forest-clad hills were visible, now for miles in extent it is all down in English grasses, homesteads have been erected, and other improvements effected. During the past year about 6,200 acres of bush lands have been felled and the area grassed, and I anticipate a much larger area this coming year.

In the Collingwood, Takaka, Waimea, and Sounds Counties marked improvements have been made during the past year in the cultivation of freehold and other lands. A few years ago many acres that were covered with fern and noxious weeds have been cleared, and are now cultivated with rape and turnips for the purpose of fattening sheep for freezing and cattle for dairying purposes. The farmers are now realizing the advisability of cultivating and improving their lands in a profitable manner, and ere long I anticipate all the available land in this locality will be under profitable cultivation.

The Crown Lands Ranger who inspected the holdings in the Buller County reports as follows on the state and progress of settlement therein:—

The demand for land for settlement purposes is still very keen, and the country that was at one time looked upon as worthless is being taken in hand by a good class of settler. The forest-clad hills are giving place to grassed clearings. In the northern portion of Buller County, extending from Seddonville to Karamea, there is ample evidence of the progress of small settlement. Clearings appear in nearly all the selections taken up during the year, besides a considerable amount of bush has been felled on the other holdings. The lateness of our summer or dry season was in some degree detrimental to the burns. In spite of the denseness of the bush, want of roads, and many other difficulties to be overcome, the new settlers appear to be in great heart, and their energy seems to be putting new life into the old settlers. The village-homestead special settlement at Seddonville shows little advance on the prosperous condition of it at the end of the last year. Most of the selectors are resident, being content to keep their homesteads in order.

During the year I have inspected 126 holdings, covering an area of, approximately, 25,054 acres, the value of improvements effected being £6,368, and that required by the Act £2,288. Thirty-seven selectors have not complied with the improvement conditions of their leases, and 15 have not fulfilled the residence conditions. The period of four years allowed by law within which residence must take place has not expired in many cases. I have also inspected and reported, for the information of the Land Board, on eighty-four applications relating to land, timber, flax, coal, &c., and, for the information of the Warden, inspections and reports have been made on 161 applications for mining privileges, &c. The office-work and writing in connection with these has been a heavy item in my year's work.

TENURES.

As practically the whole of the land suitable for settlement in this district is either within the boundaries of the mining district or the National Endowment area, the permanent tenures are limited to renewable lease, occupation leases under Part VIII of "The Land Act, 1908," and licenses for the occupation of pastoral lands in mining districts. The pastoral run and small-grazing-run tenures are not availed of, the country being forest-clad.

Eighteen lessees in perpetuity notified their intention to purchase the fee-simple of their holdings under section 177 of "The Land Act, 1908." Fourteen of the lessees have completed the purchases, the total purchase-money being £3,319 for an area of 7,123 acres.

ARREARS.

Of the total arrears, £1,085 (inclusive of endowment lands), no less than £760 is owing on timber and mining leases administered, even to the collection of rents, by the Wardens. £260 of this has since been paid. Of the balance of total arrears £150 is owing on land for settlements, and will be paid shortly. The £58 owing on occupation-with-right-of-purchase and lease-in-perpetuity holdings has since been reduced to £30. Excluding amounts owing on leases under Warden's jurisdiction, the question of rent-payment is very satisfactory, there being not one settler hopelessly in arrear.

THE DAIRY INDUSTRY.

Dairy-farming is essentially a small man's industry, for the unfailing regularity of the monthly cheque from the factory pays his herd and farm expenses, and enables him to carry on free from financial embarrassment. The industry is on the up grade in this district, and modern methods of manufacture are responsible for this. Milking-machines are taking the place of dairymen. There is scope, however, for further development. There are stretches of country in Nelson which are eminently reliable for dairy farming. At Collingwood there are two factories (proprietary); at Takaka one factory (co-operative); in Waimea County there are four factories, three of them proprietary and one co-operative; at Karamea there is one factory (proprietary). In the localities named the initial stages have been passed, and the industry is flourishing. A factory (proprietary), supplied by 320 cows, has been started at Cronadun, in the Inangahua Valley, and the success of the undertaking should be beyond doubt, for both quality of the land and the nature of the climate are favourable. Proposals are now almost complete for the establishing of a factory at Fern Flat, near Murchison, Central Buller, with a branch at Braeburn Settlement, only eleven miles distant. The settlers in the neighbourhood of Murchison have guaranteed to milk six hundred cows. The large area of splendid dairying land at Fern Flat, capable of carrying about eighteen hundred cows—and probably double that number when cultivated and laid down in suitable grasses and winter feed provided for—affords reasonable grounds for the opinion that in a few years Murchison will have become the centre of one of the most important dairying districts in the Dominion. Summarised, the position of the dairy industry in Nelson district is as follows: There are nine factories supplied by 3,900 cows; the output of butter last season was 365 tons, valued at £31,617.

THE TIMBER INDUSTRY.

There has been a general slump in the timber business throughout the district during the past year. Several reasons are alleged for the depression. It is a fact that the mills supplying export requirements were not cutting to any extent during the year. In the northern portion of Nelson district little improvement of any note has taken place in the industry, the timber cut being principally for local consumption. There are forty-seven mills in the district, four of them on Crown lands, and forty-three on private lands. The approximate output of timber amounts to 5,325,000 superficial feet.

In the southern portion of the district—Buller and Inangahua Counties—there are thirty-three mills, twenty-nine of them on Crown lands, and four on private lands, the output being 9,765,718 superficial feet. The total quantity of timber cut for the year is 15,090,718 superficial feet, or a shortage over last year of 1,540,869 ft. Included in this output were two small shipments of white-pine sent from the Karamea district to Australia, while a large portion was used in connection with the mining industry.

THE FLAX INDUSTRY.

The flax industry has been practically at a standstill during the year, owing to the fallen price of fibre, £20 per ton being the lowest price realised for a number of years. There are seven mills in the northern portion of the district; five of them are in operation cutting small quantities of flax off freehold lands, the quantity of hemp produced being about 230 tons. In the southern portion of the district there are six mills, but only two have been working, and then for a few months only, the flax being obtained principally from freehold lands. About 50 tons of fibre has been produced. Notwithstanding the state of the hemp market, millers are still sanguine, and are engaged in draining swamp lands, and otherwise improving and extending their flax-growing areas.

THE COAL INDUSTRY.

The coal industry in the northern portion of Nelson district has shown no signs of improvement during the past year. The output is very small considering the large areas held for coal-mining purposes. There are six leases current, and from only one of them is coal exported. This mine supplies local, Nelson, and Wellington markets. Prospecting is being carried on vigorously, but the results are not considered good enough to warrant expenditure on extensive works. The number of men employed in the industry is sixty. The annual output of coal amounted to 6,200 tons.

In the southern portion of the district (Buller County) the industry has made considerable progress until a few weeks ago, when a serious fire broke out in the Millerton Mine, necessitating the closing-down of the works. This was followed by the discharge (temporarily) of from four to five hundred men, and the loss of an output of coal amounting probably to 25,000 tons. The fire occurred during very dry weather, when water was unusually scarce. The mine is still closed down, but it is anticipated that the recent rains will afford a supply of water to flood the mine, and so extinguish the fire.

The Westport-Stockton Mine began operations at the beginning of the year. At this mine the most up-to-date plant in the Dominion is erected, everything in connection with the operations being worked by electricity. The output from this mine is small in comparison with that of other mines in the neighbourhood, owing to no market being obtainable. When this difficulty is surmounted it will compare favourably with other mines, as the coal is of a very good quality, while the quantity already in sight warrants many years' steady work.

The output of coal produced for the year from the Buller district amounts to 622,000 tons, an increase of 9,241 tons over the previous year.

In the Inangahua district no improvements of any moment have taken place. Large deposits exist there, and the quality is quite equal to that of any household coal in the Dominion. No market is obtainable. When an export trade is worked up this locality will become a large coal-producing district. The quantity of coal produced for the year is 12,000 tons.

The total output for the whole Nelson district for the year is 740,200 tons.

The area under lease for coal-mining purposes in Nelson district is 28,521 acres, held by sixty-six lessees.

THE FRUIT INDUSTRY.

The fruit industry in the northern portion of this district—at Motueka, Riwaka, and neighbouring localities—flourished during the past year. Both soil and climate are favourable for fruit-growing purposes. During the year over 500 acres have been planted with apple trees. Orchardists have ascertained by experience that the apple is the most profitable fruit. During last season thousands of cases of all kinds of fruit have been exported to other parts of the Dominion. A large quantity of fruit is used at the local factories. There are two canning establishments at Motueka. In the southern portion of the district very little interest is taken in fruit-growing, although several localities are well adapted for the purpose.

NOXIOUS WEEDS.

The eradication of the blackberry from large areas throughout Nelson district, particularly the Counties of Buller and Inangahua, is a matter which merits prompt attention. The local apathy on the subject is scandalous. Large tracts of land, principally freehold, and of excellent quality, have become almost worthless by the spread of this pest. I estimate that the area in the Inangahua Valley covered by blackberry is about 900 acres, and nearly all of this land is rich alluvial soil, excellent for agricultural purposes. It will take thousands of pounds to clean it.

It is regrettable that the penal clauses of the Noxious Weeds Act are not enforced, for it is a national loss that so valuable an estate, which might be made a source of wealth, is being wasted. The Government spends large sums of money annually in eradicating this weed on Crown lands, but the freeholders make no effort to assist, although manifestly it is in their own interests to assist the Government in the campaign against the weed. It is a popular opinion that the blackberry has spread from Crown lands to private lands. As a matter of fact, they have spread from bush lands worked out by sawmillers, who stripped the country of milling timber and have allowed it to lie in an uncultivated state ever since.

LAND BOARD.

The Land Board held eleven ordinary meetings during the year at Nelson and two special meetings—one at Westport and one at Reefton. The business at Westport has increased enormously during the last two years, and there are indications that activity in land settlement is commencing in the country between Reefton and the Grey River. Alluvial mining and gold-dredging are practically dead in the old seats of these industries in southern Nelson, hence the trend towards the pastoral and agricultural occupations.

DEPARTMENTAL.

Consequent upon the expansion of settlement in this district the work of all branches of the office has increased very materially. There are now 2,153 selectors on the books, many of whom are in correspondence with the Board on one subject or another. Both the office and the field staff have aided me loyally and assiduously, and to them I owe my thanks.

The number of letters and telegrams received and despatched during the year was 13,341.

The number of vouchers passed through the books for the year was 883, representing a sum of £20,896 2s. 4d.

F. W. FLANAGAN,
Commissioner of Crown Lands.

MARLBOROUGH.

In forwarding the usual annual return of land transactions within this land district, I have to remark that the past year has been devoid of any event of special importance from a settlement point of view. The very limited extent of unoccupied Crown lands in this district is the chief cause of the small extension of settlement, but there appears to be a large and keen demand by probably the very best class of settlers in the country—viz., the sons of old settlers—men who have been brought up on the land. This demand, I regret to say, we are unable to satisfy. The small balance of Crown lands in this district is chiefly of an inferior description, situated chiefly on inaccessible bush hill country at the head of the Pelorus River and its branches. Besides these areas, there are a few isolated and quite inaccessible blocks, generally situated behind land selected long ago, and therefore useless to any one else but the owners of the frontages.

It appears doubtful whether the purchase of lease-in-perpetuity holdings is likely to assume large dimensions in this district, considering that the holders are now only paying 4 per cent. as rent on a very low value, whereas they would probably have to pay at least 5 per cent. or 6 per cent. for the money to pay the present-day values of their sections, which would probably average double the original value.

So far no one in this district has taken advantage of section 191 of "The Land Act, 1908," which enables a Crown tenant to pay off up to 90 per cent. of the capital value of his holding and secure a proportional abatement of his rent, &c.

The conditions under which the Crown tenants have worked during the past year have been, upon the whole, fairly satisfactory. There was an abundance of rain during the winter months, followed by a rather wet spring and summer; this resulted in a good growth of grain, root-crops, and grass; and, although this summer rain interfered to a considerable extent with the harvest, it has produced an abundance of feed, and no great difficulty has been experienced in getting sheep and lambs in good condition for freezing. The harvest has, I think, been, in quantity, considerably above the average, but prices for barley, oats, and chaff have been very poor in comparison with last year's results; moreover, in many parts of the district considerable loss has resulted from an incursion of caterpillars, which in some instances have destroyed nearly the whole of a crop, and in others has necessitated cutting it in a green state, in the hope of saving at least something. Unfortunately, much of this has fallen upon the smaller holders, who could ill afford the loss. The season has, I think, been better from a pastoral than an agricultural point of view, for, although the price of sheep has been rather low, the abundance of feed has given more fat stock than usual, and the price of wool has been fairly good.

Taking all things into consideration, I think, on the whole, fairly good results have been obtained by the Crown tenants generally, and, given favourable conditions, they have a fair prospect of continued prosperity in future.

F. STEPHENSON SMITH,
Commissioner of Crown Lands.

WESTLAND.

The progress of settlement during the past year in this district has been highly satisfactory, and the indications for the coming year are very encouraging.

The new selections total 176,163 acres, including 10,216 acres on permanent tenure (*i.e.*, renewable leases, leases under regulations for occupation of land in mining districts, and mining districts land occupation leases), and 25,105 acres under temporary lease. A fair proportion of the latter area has been taken up by tenants who are debarred, by proximity to existing gold-workings, from obtaining a better tenure at present, but will, as opportunity offers, take steps to obtain a more secure title to their holdings. In many instances considerable improvements are being effected on these temporary leaseholds, and, although the lands cannot at present be included under the heading of "held on permanent tenures," yet these temporary leases should be regarded as preliminary titles. It is worthy of note that a number of these leases have been granted to miners who are now combining agriculture with mining, and have acquired areas under these leases, with the idea of securing more permanent tenures, and resorting wholly to agriculture as soon as their mining claims are worked out. The number of selectors has increased from 1,148, holding 798,020 acres, to 1,365, holding 881,561 acres, the annual rent of which is £5,209.

The revenue shows a decrease as compared with last year, but this is more than accounted for by the decrease in the amount received for royalties on coal, timber, and flax, the shortage in the former being due to the fact that one large mine has been worked out and closed down, and in the latter, owing to the present slump in the timber trade, which has compelled many sawmills to restrict their operations, while all flax-milling has been wholly suspended. The revenue from settlement lands shows a fair increase.

At the commencement of the year the weather conditions were very unfavourable, and the prospects of good grass and early crops were poor, but the season improved as it advanced, and we have had a record summer.

The turnip-crop promises to be very good, some surface-sown areas in the most southern parts of the district looking really well: while in the Kokatahi district, where lime is available, there are prospects of an exceptionally heavy yield. Other root-crops throughout the district have done very well. The potato-blight appeared, but fortunately it was somewhat less destructive than last year.

The oaten and meadow hay-crop has been well saved, and there should be no scarcity of winter feed.

A cheese-factory has been established at Inter-Wanganui, and is now in full working-order, dealing with the milk from 250 cows. This being the first year, some of the settlers were not ready in time, but the results are even better than anticipated, and the suppliers are well satisfied. A very good class of cheese is being produced, but the output exceeds the local demand, and some of it is therefore being exported. Ninety cases were recently shipped to London. Settlement in the vicinity of the factory is progressing rapidly, good roads and means of access to the holdings greatly assisting. It is anticipated that the number of suppliers will be considerably increased next season.

The completion of the Wataroa Bridge is of great assistance to the southern settlers in getting their stock to the market, and when the Wanganui River is bridged the long delays in driving stock occasioned by floods will be overcome, thus removing one of the greatest drawbacks to settlement in the southern district.

The butter-factories at Kokatahi and Arahura are thriving concerns, and the whole output from both is realising good prices. Owing to better access, it is expected that factories will shortly be opened at Wataroa and Waitaha.

The northern portion of the district is steadily progressing, the facilities for getting stock to the market giving settlers in that part a decided advantage over the southern settlers. There is a butter-factory at Totara Flat, but comparatively few are supplying milk to it, the holdings being utilized principally for raising and fattening stock.

Rangers' inspections show that lessees generally are effecting good and substantial improvements. The area of bush felled is slightly short of the previous year's total, but this is due principally to the difficulty in obtaining labour. There were fifty defaulters who had not complied with various conditions, and practically the whole of these were lessees of sections in Runanga Township who had built houses but had leased them to tenants. The Land Board, recognising the absolute necessity for preventing speculation in Runanga Township, declared thirty-two of the leases forfeited: but further consideration was given to these cases at a special meeting held at Runanga, and in every instance where the improvement conditions had been complied with completion of the forfeiture was deferred for six months, in order to allow lessees time either to enter into residence themselves, or dispose of their leases to persons who would comply with the residence-conditions.

The area of new land put in the market was 11,051 acres, and further areas totalling upwards of 20,000 acres were subdivided, but could not be offered during the year, on account of overlapping unexpired timber rights and pastoral runs. The only permanent tenure available in this district is renewable lease, as the whole area of the district is included in a mining district, although in some portions there are at present no indications that the land will ever be required for mining purposes. This limitation of tenures available no doubt hampers settlement to a considerable extent, as intending selectors who have a preference for either freehold or a lease with right of purchase are debarred from acquiring any land. There is a good demand for land in all parts of the district, but it is probable that the demand would increase were lands offered on the optional system.

Upwards of thirty lessees have given notice of their intention to acquire the freehold of areas held by them under lease in perpetuity, and, of these, six have completed the purchase, further action towards completion in the other cases being held in abeyance pending the decision of the

Court in the matter of the application of section 177 of "The Land Act, 1908," to lands acquired under section 121 of "The Land Act, 1892," under which section practically the whole of the land in this district has been dealt with.

VILLAGE SETTLEMENTS.

There are only two village settlements in the district—viz., Kokatahi and Runanga. The former comprises 197 acres, of which 180 acres was in white and green crop this year. The Runanga Village Settlement is subdivided into areas sufficient for residence-sites only, and the sections are reserved for employees in the State coal-mine. There are forty-eight persons resident on these settlements, on which improvements have been effected to the value of £2,381.

MINING DISTRICTS LAND OCCUPATION LEASES.

There have been only eight new selections. This system is favoured by intending selectors only in cases where the area is less than the minimum allowed by regulations for the occupation of lands in mining districts. One lessee has exchanged his lease under this tenure to renewable lease.

PASTORAL RUNS.

Six runs the licenses of which were expiring were reoffered for lease by auction, and all disposed of at satisfactory prices. Areas totalling 10,921 acres were resumed for settlement from eleven runs. Right to improve areas totalling 2,180 acres, by clearing the bush and sowing grass, has been granted to ten licensees.

PASTORAL LANDS WITHIN MINING DISTRICTS.

New dealings total about same area as last year. Three leases have been exchanged to renewable lease. Good progress has been made by lessees.

MISCELLANEOUS LEASES.

Selections during the year comprise one lease of an area for brick-making purposes, and one for wood-pulping, the remainder being for grazing purposes, principally in localities where mining operations rendered the granting of better tenures inadvisable.

FORFEITURES AND SURRENDERS.

Five leases of sections in Runanga Township and six leases of rural land have been forfeited for non-compliance with conditions. In all cases every opportunity has been allowed to tenants to prove their *bona fides* before action has been taken, in the direction of forfeiting the leases, as the Land Board has always endeavoured to assist settlers rather than to deal with them harshly or too strictly in accordance with law. Surrenders of nineteen leases have been accepted, the area included in ten of these leases having been acquired by the former lessees on more permanent tenures.

ERADICATION OF NOXIOUS WEEDS.

A sum of £166 has been voted during the year for carrying out this most necessary work, and of this amount £120 has been expended chiefly in clearing ragwort and Californian thistle. Considerable difficulty has in some cases been experienced in compelling owners and lessees to clear their own lands, and protect them from this nuisance.

DEPARTMENTAL.

Fourteen ordinary and special meetings of the Land Board have been held, the items of business considered totalling 909. 3,200 letters were received and 4,842 despatched, and in addition to this upwards of 3,000 notices were issued. 1,697 sale-plans were also distributed to post-offices and intending applicants.

There were 856 leases and other documents prepared and issued. £12,150 was passed through the Accountant's books, 412 vouchers being passed. The Receiver of Land Revenue issued 2,132 ordinary receipts and passed £1,862 5s. 10d. through his Deposit Account, issuing 517 receipts for that amount.

Again I have much pleasure in recording my appreciation of the industry of the staff, and in acknowledging the willing assistance of each officer during the year.

G. J. ROBERTS,
Commissioner of Crown Lands.

REPORT UPON PROTECTIVE WORKS TO PREVENT ENCROACHMENT OF RIVERS, AND UPON OTHER WORKS, WESTLAND LAND DISTRICT.

Totara Flat.—Expenditure, £259 15s. 11d., together with a pound-for-pound contribution from the settlers interested and the Grey County Council; spent on a substantial wall of wire crates and stones, in order to prevent the encroachment of the Grey River, which at times flooded the settlers' holdings, and threatened to wash away a considerable amount of land. An earth stop-bank was also erected. The works were under the direct supervision of the Grey County Engineer, and when I last visited the locality everything was standing well, and the river was gradually being forced into a new and safer channel.

Poerua Settlement.—Expenditure, £105 1s. 10d. A new channel, 45 chains in length, has been cut for the waters of Slatey Creek, which previously overflowed the sections. The channel has been fenced and willows planted, and if the settlers attend to it occasionally it is expected to prove a relief in flood-time. This work was carried out by two settlers on a subsidy basis.

Protective Works, Totara River, Ross.—Expenditure, £26 9s. 11d. Three chains of substantial wire crate and stone protection were constructed for a settler on the banks of the Totara River. The river threatened to cut into the land and do considerable damage, but the danger has now been averted. The settler interested provided half the cost in labour.

Protection Works, Kokatahi Settlement.—Expenditure, £12 10s. An amount of £25 on a subsidy basis was granted to a settler on the Kokatahi Settlement who has done a considerable amount of work in protecting his land. A sum of £12 10s. has yet to be paid. As the work is only just completed, it is difficult to say what the result will be in flood-time.

River Protective Works, Wanganui River, South Westland.—Expenditure, £127 3s. 7d. These works, consisting of a barricade of posts and barbed wire, were constructed to prevent the overflow of the Wanganui River through the Wanganui Flat. Half of the money was found by the settlers, partly in cash and partly in labour. It yet remains to be seen what value the work possesses, as there have been no large floods since it was completed. The amount was inadequate to provide for an efficient safeguard, but, as the work was well and substantially built, it is to be hoped that it will be at least partially successful.

Roa Township (Westland).—Felling bush prior to disposal of sections, £30 17s. Expenditure, £30 17s. A co-operative contract was let for the above work, which covered about 11 acres. The felled bush has since been burnt.

Roads and Other Works in Runanga Township.—Expenditure, £2,442 15s. 4d. During the past twelve months the work of forming and metalling streets through this thriving township has been proceeding apace, and endeavours have been made to meet the demands of the residents where they proved reasonable. The Railway Department being unable to continue the loading of the necessary supply of gravel at Stillwater, we finally had to send a gang of men there to load the trucks. By employing the remainder of the men at drainage-works in the intervals of the gravel-supply we were enabled to keep them all fully employed. By utilizing the waste from the mine (kindly donated by Mr. Bishop, mine-manager) to cover the formation in places we have also economized a considerable amount of gravel. During the year the Railway Department delivered 6,059 tons of gravel. The centres of the streets in the township are now all formed, and the principal ones metalled. Side-drains have been dug where necessary, and creek-bends straightened. It will not be possible to carry out a comprehensive scheme for drainage until the construction of the proposed outfall drain through the adjoining section to the Seven-mile Creek. In addition to the completion of the formation and the metalling of the principal streets, numerous other small improvements have been undertaken, such as keeping the streets in repair for traffic, repairs and relaying of tramways for distributing metal, clearing stumps, &c., in front of public buildings, and generally carrying out the functions of a Town Board.

As soon as one of the staff is available, the surveys for a water-supply and drainage scheme will be taken in hand.

I beg to express my appreciation of the skill and tact displayed by the Overseer in carrying out the various constructive works in the township during the year.

G. J. ROBERTS,
Chief Surveyor.

CANTERBURY.

LANDS OPENED FOR SELECTION.

Exclusive of lands offered under the Land for Settlements Act, which are dealt with separately, the bulk of the lands placed on the market during the year were offered under the optional system and for pastoral license. Under the optional system twenty-three allotments, containing an area of 7,245 acres, were offered; ten of these, comprising 466 acres, were small scattered areas previously offered but not taken up; eight allotments, comprising 2,727 acres, near Hanmer Springs, and two blocks, comprising 3,739½ acres, near Hurunui, had previously been held on pastoral license, and were now made available for settlement occupation; the remainder of the lands offered under this system were small areas in various localities.

Out of the 6,863 acres selected during the year under the optional system, ten allotments, comprising 6,000 acres, were taken up under renewable lease; one allotment, of 564 acres, under occupation-with-right-of-purchase license, and seven allotments, totalling 299 acres, were purchased for cash.

Under pastoral-license tenure, fifteen runs, representing an area of 249,801 acres, were offered for disposal at auction. Fourteen of these were put up, as required by the Land Act, a year before the expiration of the existing licenses, and, with one exception, the new term of license was fixed at twenty-one years, in order to encourage the tenants by fixity of tenure to improve the Crown pastoral property. Representations were made that some of these runs should be subdivided and made available for settlement occupation in limited areas by men of small means, but the Classification Commissioners, after inspecting the runs, and giving the subject most careful consideration, were unable to recommend any further subdivision, as the character of the country, with its difficulties of access and risks of heavy loss of stock by snowfalls, rendered it unsuitable for occupation in smaller areas or by men whose financial position would be unable to stand the heavy losses liable to occur periodically in such country. Out of the fourteen runs offered twelve were sold, and two small runs, comprising 3,824 acres, are to be reoffered on slightly modified terms.

The other lands offered during the year included one rural allotment of 140 acres and two village allotments of 7 acres, offered for cash sale at public auction; two allotments, comprising 748 acres, offered for lease for terms of seven and forty-two years; and eleven allotments under the Workers' Dwellings Act. Two allotments, comprising 2½ acres in the Township of Albury, South Canterbury, were offered for sale on behalf of the School Commissioners.

LAND TRANSACTIONS AND TENURE.

Apart from the new selections that have taken place during the year, a review of the older forms of tenure shows that very few changes have taken place. Amongst the holders who have the right to acquire the freehold, one each under the perpetual-lease, occupation-with-right-of-purchase, and lease-in-perpetuity systems have exercised this right, the total area so alienated being 611 acres 3 roods.

Two exchanges of tenure from perpetual lease to renewable lease, in respect of an area of 26 acres 2 roods 6 perches, have been effected, and two similar exchanges from lease in perpetuity to renewable lease under the Land for Settlements Act have also taken place.

PAYMENT AND ARREARS OF RENT.

The total annual rental payable by the 3,249 tenants, who occupy an area of 4,137,296 acres 1 rood 39 perches, is £148,334 17s. 2d. The actual gross revenue received from all sources was £141,145 9s. 4d., of which rents represented £135,529 6s. 11d., the balance being miscellaneous payments.

The gross total of arrears owing on all classes of tenure on the 31st March, 1909 (excluding payments due in respect of current periods not yet expired) was £4,332 10s. 9d., owing by 139 tenants. These represent, as regards the number of tenants, just over 4 per cent., and, as regards amount, slightly under 3 per cent. The arrears are, for the reason explained in the land for settlements report, heavier than usual, but if the postponed payments in the Kinloch Settlement be deducted the remaining ordinary arrears only represent about 1 per cent. of the total.

TRANSFERS.

The total number of holdings under settlement tenures that were transferred during the year was 169, covering an area of 38,717 acres 1 rood 27 perches, made up as follows:—

	Leases.	A.	R.	P.
Leases in perpetuity, all classes	116	19,835	0	11
Village homesteads, all classes	38	1,160	1	30
Small grazing-runs and grazing-farms	9	17,179	0	7
Perpetual and farm homestead leases, and occupation-with-right-of-purchase licenses	6	542	3	19
	169	38,717	1	27

These figures show a small decrease from the preceding year's dealings, which in their turn were less than those of the previous period. On the whole, however, the number of transactions has been normal, and the amount of consideration money that passes in most cases shows that Crown leaseholds maintain a good position in favour of those desiring land for *bonâ fide* occupation and cultivation.

TIMBER AND FORESTS.

It is satisfactory to report that no serious fires have occurred during the year affecting the forests on Crown lands. The amount of available milling-timber remaining on such lands is now very limited, the only localities where regular milling operations are now carried on being the Oxford district (principally on Crown lands) and near Alford Forest, on freehold lands. The other areas of forest in the district are generally too remote, and the quantities of suitable milling-timber in them too limited, to be capable of being worked; but any destruction of them would be a matter for regret, owing to the effect that such destruction would have on the sources of water-supply and the configuration of the country.

There are now in existence in the Oxford district four sawmilling licenses, covering an area of 840½ acres, and nine splitting licenses, covering an area of 1,931 acres 2 roods, the total revenue received during the year by way of royalties and license fees being £199 2s. 7d.

SCENERY-PRESERVATION.

No fresh areas have been acquired for scenery-preservation during the year. The Kennedy's Bush Scenery Reserve, near Christchurch, is now being administered by a nominated Board of local representatives, which has made arrangements for fencing-in portions of the reserve, and for replanting native trees. The road access to the reserve has also been improved by the formation of part of the Summit Road.

The Peel Forest Scenery Reserve has been placed in charge of a caretaker residing on a small property immediately adjoining, who has enlarged his premises, and provides accommodation for visitors. With the exception of local picnic parties, however, the number of visitors to the forest has been limited this season, and it is to be regretted that the beauties of Peel Forest, and its advantages as a holiday resort, are not more widely known.

WORKERS' DWELLINGS.

Eleven new workers' dwellings in the Camelot Settlement, Sydenham, were opened for application on the 6th October, 1908. Thirty-five applications were received, and, after examination by the Land Board, all but one of the applicants were admitted to the ballot, at which the whole of the dwellings were allotted. The new dwellings, as well as those previously disposed of, are being satisfactorily occupied, and the premises and gardens generally are neatly kept. The number of dwellings occupied at the close of the year was twenty-four, the total area being 5 acres 1 rood 32½ perches, at a rental of £623 17s. per annum. The arrears of rent at the close of the year are larger than those for the previous period, a fluctuation that is inevitable where tenants are completely dependent upon outside employment.

RANGERS' INSPECTIONS AND CONDITION OF SETTLEMENT.

The Crown Lands Ranger for North Canterbury reports that during the year he inspected 131 holdings, comprising an area of 25,213 acres, on which improvements to the value of £11,086 were required, and the value effected was £27,087. In a very large number of cases the periods of compulsory residence and improvements have expired. The Lake Ellesmere leaseholds still labour under the disadvantage of periodical overflow from the lake water, and until the land is secured from this trouble further improvements cannot be expected, as at present fences have to be renewed every two or three years, and the lands can generally only be used for grazing purposes. If the present endeavours to prevent the lake from rising beyond a defined level should prove successful, further improvements may be looked for. On the small grazing-runs at Hororata, selected in March, 1907, the holders have all done the necessary improvements, and are making good progress. On the Oxford plains the settlers have experienced a better year than last, and satisfactory compliance is being effected. Generally speaking, the tenants throughout North Canterbury have done fairly well; the absence of any long period of dry weather, and the plentiful rains during spring and summer, kept the pastures good and feed abundant, and also where cropping was attempted there were fair results.

In mid Canterbury the Ranger states that all settlers are fairly prosperous, and are keeping their holdings in good order; there are a few cases of deficiency in value of improvements, which will no doubt be remedied as time and opportunity permit.

In South Canterbury the Ranger reports that the past season has been a particularly good one for the small grazing-runs and pastoral leases in perpetuity, which form the bulk of the Crown lands holdings in this portion of the district. The heavy snow experienced in July last did not have such serious effects as was at first anticipated, and the percentage of lambing has been good. Feed has been fresh and plentiful, and surface-sowing has been successful. The tenants of some of the larger holdings are deficient in respect of the large amount of improvements required, but have done as much as is reasonably necessary for the efficient working of their holdings, and in all other respects are complying very satisfactorily.

The village settlements throughout the district do not disclose much change of condition, but continue to afford very useful homes for agricultural labourers and others, who devote their spare time to keeping their homesteads and holdings in good order, and with very few exceptions have amply fulfilled all the requirements of their leases.

CROWN LANDS FOR FUTURE DISPOSAL.

The Crown lands lying open for selection at the close of the year totalled 394 acres 1 rood 11 perches, made up as follows:—

Tenure.	Area.			Localities.
	A.	R.	P.	
Rural lands under optional system ..	248	2	27	Selwyn and Geraldine Counties.
Village homestead allotments on lease in perpetuity	76	2	0	Ashburton County.
Land for settlements	69	0	24	Annan, Highbank, and Rosewill Settlements; Kapuatohe and Tarawahi Hamlets; Culverden and Morven Townships.

Before the 1st March, 1910, steps will have to be taken to reoffer for disposal the leases of a number of pastoral runs, comprising a total area of nearly a million and a half acres, consisting principally of the back country runs in the Mackenzie and Ashburton Counties, with a few in the Amuri, Selwyn, and Geraldine Counties. These will require careful inspection and classification to determine what blocks, if any, are suitable for disposal in smaller areas, to meet the pressing demand that exists in this district for land. Much of the country, however, is situated at high altitudes, liable to heavy falls of snow, and remote from centres of population, and can therefore probably only be successfully occupied in blocks of considerable size.

LAND BOARD ELECTION.

The first election by Crown tenants of a member of the Land Board under the amendment of the land-laws passed in 1907 was held on the 27th August last, three fresh candidates being nominated in addition to the sitting member, Mr. J. Sealy, who offered himself for election and was returned.

DEPARTMENTAL.

The usual current departmental work has been well maintained during the year, our endeavour being to insure that the requirements of the Crown tenants and others shall be dealt with as promptly and satisfactorily as possible.

ERIC C. GOLD SMITH,
Commissioner of Crown Lands.

REPORT ON THE CHEVIOT ESTATE.

With the exception of a few transfers, there has been practically no change in the occupation of the holdings on the Cheviot Estate during the past year. The Crown Lands Ranger reports that, so far as the season and the crops are concerned, the tenants have experienced a good year.

Grain crops were grown on 3,994 acres, an average return being obtained from wheat of about 33 bushels per acre, and from oats of about 50 bushels per acre, but only a small portion of the latter has been threshed, owing to low prices offered, and probably the bulk will be used as chaff. Green and root crops, consisting principally of turnips and rape, were grown on 5,250 acres, with good results. The area of pasture laid down in cultivated grasses was 24,302 acres, and 39,492 acres was in tussock and native pasture. Caterpillars made their appearance on the estate, but fortunately their ravages were confined to a comparatively small area. The number of sheep shorn was 80,070, and the lambing averaged about 90 per cent.; the other live-stock on the estate comprised 1,290 head of cattle, 1,141 horses, and 223 pigs.

A little dairying is being done, and good butter was obtainable for 7d. and 8d. per pound locally. In the centre of the estate there is an area of about 4,000 acres, occupied in small holdings, which is very suitable for dairy farming. The railway-station at Mina will tap this land, and butter-fat, if not made up there, where the water is good, could be railed to the dairy factories at Christchurch. It is to be regretted that at present there does not appear to be any movement for reopening the dairy factory.

The landing-slip at Port Robinson is now permanently closed, and the approach thereto *via* the Bluff Road is blocked by landslips; all transport of goods and stock is now by railway.

As regards improvements, the Ranger notes that new houses, and additions to those existing, continue to be built, and are of more pretentious dimensions and architecture than the original dwellings. Fencing, sheep-yards, and other improvements are maintained in good order, and the general working of the estate is commendable. The estimate of the value of improvements is £104,000. Private gardens, orchards, and plantations now occupy 485 acres, 10 acres more than at the time of the last return. Three Domain Boards are interested in 250 acres, part of which is planted. Although the term of compulsory residence has expired in the village settlements on the estate, very little difference in the number residing is noticeable.

ERIC C. GOLD SMITH,
Commissioner of Crown Lands.

OTAGO.

The results of the year as regards revenue have been highly satisfactory, the gross estimate having been exceeded. There is a surplus of receipts over the estimated amount sufficient to indicate that the year's transactions in all respects have been of a satisfactory nature.

SETTLEMENT OF ORDINARY CROWN LANDS.

During the year there was opened under various tenures a total area of 699,844 acres. Included in this are the Meadowbank and Kauroo Hill Settlements, acquired under the Land for Settlements Act. The total number of applicants for these estates proves that there is a great demand for land of good quality.

The area of land at present available for selection and open in the Land Guide is 7,794 acres, and an area of 614,385 acres, comprising part of Kawarau Falls, of Nevis, the Morven Hills, Kawarau, Matakauui, Linburn, and Ida Valley runs, which will be opened principally under the small-grazing-run system and under the provisions of the National Endowment Act.

THE VARIOUS TENURES.

A reference to the tables will show that, apart from the purchase of the Otekaike runs under the Land for Settlements Act, the cash sales are not very large, nor are there many conversions from leasehold to freehold under the tenures which carry that option.

As there are no further selections of holdings under deferred payment, perpetual lease, lease in perpetuity, and agricultural lease, with the exception of being diminished by a few forfeitures, surrenders, and purchases, the returns show very little alteration, and call for little or no comment.

Of lands opened under the optional system, the occupation with right of purchase continues to be the most popular, and the selections under this tenure for the year were 3,252 acres; and, taking into account purchases and other dealings, the figures for this year show an increase of eighteen selectors and an area of 2,844 over that held at the end of last year.

During the year the "Barewood" University Run (comprising 29,094 acres, exclusive of reserves) was offered in nine small grazing-runs, all of which were selected at ballot, at a total annual rental of £1,094 7s. 10d.

PASTORAL RUNS.

During the year 662,816 acres (excluding endowments) was offered under this tenure twelve months prior to the termination of the existing leases, and there was keen demand for the runs. The particulars appended below show the total pastoral leaseholds purchased:—

Class.	Number selected.	Area. Acres.
Ordinary Crown lands	23	423,531
National endowments	14	239,802
Ordinary endowment	2	25,590
Totals	39	688,923

RUN-CLASSIFICATION.

Special notice should be taken of the work under this heading. During the year upwards of a million and a quarter acres had to be inspected and dealt with, either by auction as pastoral runs or reserved for small grazing-runs or closer settlement. All the members of the Board were at various times engaged with me at this, and for the extensive area expeditious and good work was accomplished. Approximately half the area classified was dealt with under the pastoral-license system, and when offered at auction sold at satisfactory rentals; the remaining half is now under survey, and if a sufficient number of surveyors are available should be offered early in the ensuing year.

The following return will be of interest, as showing how the classification works out:—

Name or Number of Run.	Area for Pastoral Lease.	Area for Settlement.	Total Present Area.
	Acres.	Acres.	Acres.
Kawarau	66,000	143,420	209,420
Run 354	29,130	15,550	44,680
Cowan's Run	21,600	12,364	33,964
Morven Hills	90,000	238,000	328,000
Linburn	16,000	65,200	81,200
Ida Valley .. .. .	..	72,296	72,296
Matakanui .. .. .	..	53,985	53,985
Runs 331 and 331A	31,910	13,570	45,480
204E	2,382	..	2,382
Runs 204B, D, F, 205H, 306, 171D, C, G, 121A, and K	46,884	..	46,884
96, 97, 98	132,600	..	132,600
95 and 430A	49,200	..	49,200
Table Hill sections	375	..	375
5 of C	2,000	..	2,000
26 and 27	58,060	..	58,060
8	10,400	..	10,400
12, 12A, and 18	66,600	..	66,600
433	24,600	..	24,600
	647,741	614,385	1,262,126

RENEWABLE LEASES.

The area held under this system has been increased during the year by the selection of 3,003 acres, at an annual rental of £67 10s. 8d., all of which comes under the provisions of the National Endowment Act. The Meadowbank and Kauroo Hill Settlements, acquired under the Land for Settlements Act, were opened for selection under this tenure. The total number of selectors of renewable leases Settlement Lands on the books is 106, holding 76,146 acres, at a total annual rental of £13,487 18s. 4d.

NATIONAL ENDOWMENT LANDS.

The following table shows the areas of land at present held under the National Endowment clauses of "The Land Act, 1908." The aggregate area brought under the provisions of this part of the Act in this district is 2,217,030 acres 2 roods 35 perches:—

	No.	Area.	Annual Rental.
		A. R. P.	£ s. d.
Ordinary renewable lease	16	3,098 0 25	70 2 0
Village-homestead renewable lease	5	54 0 36	2 14 0
Small grazing-runs	210	528,443 3 23	10,204 10 6
Pastoral runs	54	1,682,422 0 18	13,241 19 6
Totals	285	2,214,018 1 22	23,519 6 0

INSPECTIONS AND RANGER'S REPORTS.

The value of the improvements effected by selectors, as shown by the reports of the Crown Lands Rangers, is still largely in excess of the amount required under the conditions on which the lands are held. A reference to the tables will show that at the date of the last inspections the excess over actual requirements in respect to the holdings inspected amounted to no less a sum than £120,114, which must be regarded as eminently satisfactory. As regards the progress of settlement generally, it is pleasing to be able to state that on the whole the year's operations have been of a favourable and successful character.

The Crown Lands Ranger reports:—

“Ordinary Crown Lands.”—The occupiers of ordinary Crown lands have made steady progress during the past year, notwithstanding the fact that many adverse circumstances operated against them. In parts of Central Otago the winter was most severe, owing to the very heavy snowfall over such a large area of pastoral and small-grazing-run lands. The loss of stock, however, proved not nearly so heavy as was at one time anticipated, and this is in a very large measure due to the energy and self-sacrifice of the run lessees and their employees, who worked so hard and so fearlessly in ploughing tracks through the snow and in carrying artificial feed to the starving stock. Following the disappearance of the snow, the weather was very dry till well on in December, with the result that feed became scarce, causing a somewhat poorer yield of wool, and operating in a measure against large lambing percentages. During the months of December and January good rains fell, and from that time onward feed has been plentiful, and there is every appearance of plentiful root crops and winter feed. Wool prices, though somewhat better than last year in certain lines, are still on the low side. The principal sufferers on this account, however, are the smaller holders who go in for mixed farming, but their losses in this direction may be more than counterbalanced by good grain and root crops.

“The southern and coastal parts of Otago have had a fairly dry season, but, on the whole, the crops, both grain and root, may be described as very good. Sheep have not been commanding as high prices as usual, and the fat-lamb trade has not been marked by such briskness as in previous years. The success of this trade is a very large factor in the success of a big majority of Otago farmers, and any prolonged depression in prices would be a very serious matter for them. It is to be hoped, however, that low prices will soon give way to substantially increased ones. The dairy-farmers have had a good year. Prices have been maintained, and feed has been plentiful. Fruit-farmers have been very successful, and when the returns for the fruit-growing districts are totalled it will probably be found that the past has been a record year.

“Generally speaking, steady progress has been made all round, and the settlers have not any serious grievances. Notwithstanding the fluctuation in prices of certain lines of produce—and these fluctuations must be expected from time to time—the prospects of the Otago farmer are good.”

ARREARS OF RENT.

Compared with last year, the arrears at end of this year are greater by £674 1s. 9d. It must be remembered, however, that the previous year was an exceptionally prosperous one, and, when you take into account the fact of the increase of annual payments on holdings and the undoubted tightness of the money-market, the result must be regarded as fairly satisfactory.

FORFEITURES AND SURRENDERS.

A reference to the various tenure tables gives full details of dealings under this heading, and it may be observed that the number of forfeitures is comparatively small, and bears very favourable comparison with the transactions of former years.

TRANSFERS.

The following list shows clearly the dealings under this head. It might be remarked that there is a falling-off of transactions, but this is mainly to be accounted for by the high prices asked for by the vendors and the reluctance of the financial institutions to advance money to intending purchasers at the present time:—

Tenure.	Number.	Area. Acres.
Lease in perpetuity	44	6,715
Occupation with right of purchase	17	2,026
Land for settlement	49	13,069
Small grazing-run	17	35,282
Perpetual lease	10	980
Occupation lease	11	422
Pastoral license	20	257,192
Miscellaneous	30	3,769
Total	198	319,455

SCENIC RESERVES.

Little has been done this year in the way of acquiring further areas for scenery preservation, but some useful work has been done in connection with some of the large reserves near Dunedin. At Mount Cargill, tracks have been cut and direction-boards set up for the guidance of visitors, and at West Harbour, or Signal Hill, most of the scenic area has been fenced, so as to prevent the incursions of cattle. The administration of this reserve has been placed in the hands of a local Scenic Board, and it is the Board's intention to undertake the work of replanting some of the vacant spaces at an early date. Most of the reserves, naturally, have been made for the purpose of conserving the native forest, and every endeavour is being made to prevent its destruction by fire or timber-cutting.

DEPARTMENTAL.

The period under review has been a year of strenuous work for the whole staff; a greater volume of work had to be taken in hand and put through than has been the case for many years. All, both field and office, have done good work, and to them I am much indebted for the successful results of the multifarious duties required in connection with land for settlements, run-classification, sales, and general working of the district under my control.

D. BARRON,

Commissioner of Crown Lands.

SOUTHLAND.

A comparison of this year's returns with those of 1907-8 will show that there are now 2,120 Crown tenants in Southland, as against 2,069 at the end of last year, while the additional area held is 5,288 acres. The gross revenue for the year is £32,040 15s. 6d., being about the same as that of last year.

It was anticipated that two large blocks of land—one of 6,500 acres near Invercargill, and the other of 10,000 acres west of the Waiau—would have been open for selection during the year, but the former only was offered, the larger block being withheld pending its withdrawal from the Otago Mining District. The object of this withdrawal is that the land may be offered for selection under the optional system, the occupation-with-right-of-purchase tenure being the favourite in Southland. Had this block been available for settlement during the year the land transactions would have been much increased. During the year the last of the deferred-payment selections has been made freehold. That tenure is therefore now extinct so far as Southland is concerned. Section 138 of "The Land Act, 1908," has been made use of by allowing a number of settlers near Oraki to increase their holdings, a block of 1,200 acres (old sawmill workings) having been cut up for that purpose.

ARREARS OF RENT.

It is satisfactory to note that the arrears of rent at the close of the year were slightly in decrease of last year's arrears.

FREEHOLD TITLES ISSUED.

Provisional titles to the number of forty-one over an aggregate area of 9,037 acres were issued by the Receiver of Land Revenue. The subjoined table shows the various tenures:—

Tenure.	Selectors.	Area.		
		A.	R.	P.
Deferred payment	4	5,946	1	14
Perpetual lease	4	888	0	36
Lease in perpetuity	2	1,174	2	12
Occupation with right of purchase	3	171	1	22
Cash under "The Land Act, 1892"	11	767	3	6
Auction-sales	17	88	3	5
	41	9,037	0	15

TRANSFERS.

The total number of transfers completed during the year is made up as under:—

Tenure.	Lessees.	Area. Acres.
Lease in perpetuity	56	9,581
Occupation with right of purchase	20	5,205
Perpetual lease	9	1,077
Pastoral runs	6	24,066
Miscellaneous leases	9	6,655
Mining district land occupation leases	1	49
Sawmill areas	2	300
	103	46,933

RESERVATIONS.

Up to the present 3,494,887 acres in this district has been permanently reserved, chiefly for the preservation of flora and fauna, and for scenic purposes. Of this acreage, 284,469 acres has been reserved during the past year.

SAWMILLING INDUSTRY.

At the present time there are sixty-three sawmills in this district, which command rights to cut over sawmill areas and reserves aggregating 36,753 acres. During the past six months the industry has fallen back from various causes, and several mills have had to shut down. During the year there has been a revision of the Timber Regulations, which it is hoped will enable the Crown and State forests to be administered with greater satisfaction than hitherto, both to the sawmillers and to the Government. As the industry gives employment to a large number, and in various ways contributes largely to the revenue of the Dominion, it is to be hoped that the present decline may be only temporary.

BUSH-FIRES.

Fortunately, there has not been in any large way a repetition of the disastrous fires of the two preceding years. There was a small burn in some old mill-workings in Seaward Bush, necessitating the sowing of about 150 acres with grass-seed. It is highly desirable that a lot of these old worked-out sawmill areas should be withdrawn from State forest, cut up, and opened for selection as soon as possible.

LAND BOARD MEETINGS.

During the year there have been thirteen meetings of the Land Board, several of which have been two-day meetings, the business having been on these occasions of a troublesome nature, and requiring very careful consideration.

LAND PROPOSED TO BE OPENED FOR SELECTION DURING 1909-10.

Early in the year a block of land, west of the Waiau River, recently surveyed, will be opened under the optional system. This block contains some 9,400 acres, and is subdivided into sections of from 200 to 400 acres. It is all bush-clad, with a considerable sprinkling of milling timber on it. The question of the disposal of this timber has engaged the attention of the Land Board for some time, and I am confident that the result will be satisfactory to intending selectors, in that they will not be harassed by having to pay down large amounts for the timber, while at the same time the Government's interest therein will be duly conserved. I expect there will be a brisk competition for sections in this block. I propose to cut up a block of 4,000 acres near Otautau and another of 2,000 acres on the west bank of the Waiau. The first consists of bush country through which the mills have worked; the other is covered with bush containing a large proportion of good milling timber. Both blocks should be readily taken up. Of land already open, in the Land Guide there is 26,085 acres, but most of this is of poor quality, and in many cases difficult of access.

GENERAL REMARKS.

The progress of the district has been, as in the last few years, very satisfactory. The Crown tenants are doing good work in improving their holdings and making homes for themselves, and are acting generally well up to the conditions of their leases. Stimulated by the pushing-on of the railway to Tuatapere, the settlers in the western district have made marked progress, which will doubtless be more marked when the land on the western side of the Waiau is thrown open. The good work done by the drain-plough is evidenced by the bringing into cultivation of more and more of the sour and swampy lands.

At present, owing to the tightness of money and the low prices of stock and produce, there is a little depression; but I feel confident that the outlook is good, and that Southland will ere long prove to be one of the finest agricultural districts in the Dominion.

DEPARTMENTAL.

As must be expected, owing to the increase in the number of Crown tenants, the clerical work is steadily increasing. The fact that outward correspondence in the way of letters, telegrams, and notices comprised 9,310 items, and that 3,442 posters were distributed, will give some idea of the volume of correspondence. A considerable amount of extra work was entailed in the preparation of a large number of warrants in connection with Native lands. I take this opportunity of recording my appreciation of the willing and conscientious manner in which the various members of the staff have discharged their duties.

E. H. WILMOT,
Commissioner of Crown Lands.

APPENDIX II.—LAND FOR SETTLEMENTS (EXTRACTS FROM REPORTS OF COMMISSIONERS OF CROWN LANDS ON).

AUCKLAND.

It was in the year 1896 that the first estate purchased under the provisions of the Land for Settlements Act in this district was offered for selection. It is known as the Opouriao Settlement, and is situated in the Bay of Plenty district. The success which has been achieved by the selectors there has exceeded that of any other settlement offered under this Act.

Since Opouriao was acquired, further purchases, to the number of twenty, were made in various parts of the land district. Of the estates so obtained there are practically three classes. Opouriao and thirteen others consist of large areas of rural land, most of which is suitable for agricultural purposes. The Opouriao, Fencourt, and Matamata Settlements stand out prominently as the most successful. Other settlements have been successful, but have not reached the high standard attained by the three mentioned. The Okauia Settlement, which is seven miles from Matamata, and was settled in 1898, has been in the past consistently the least prosperous. This was apparently due, in a great measure, to the fact that the wrong class of settler secured the sections. There were single men who lived a nomadic life, and there were men who had no practical experience in farming. Both factors operated against success, as the lands were neglected, and what work was done was not carried out in a husbandlike manner. This year, for the first time, it is satisfactory to be able to report that the settlement has assumed a new aspect. Several sections have changed hands, and the introduction of new settlers has resulted in a considerable increase in the output and a corresponding improvement in the appearance of the place.

The more modern settlements are Selwyn, Mangapouri, Mangawhero, Waimana, Tautari, and Rewi. They are all too recently settled to compare their operations with previous years, but individual comparisons may be made. Waimana, Mangapouri, and Mangawhero all promise well. Of these, Waimana, with its present indications, coupled with the facts that it is situated in the same district as the Opouriao Settlement and that considerable discrimination was made in allotting sections, should attain the greatest success. Very optimistic opinions are also held as to the ultimate prosperity of the other two settlements referred to. In the case of Selwyn, Tautari, and Rewi, opinions differ, and it is doubtful what the results will be. Selwyn is the

oldest of the three, but it has not exhibited any great progress. Tautari seems handicapped on account of distance from railway and the high price of some of the sections. Rewi has attracted little attention, and only one selection has been made.

In all the settlements referred to in the foregoing, operations are divided between dairying, agriculture, and stock-raising. Excellent returns have been obtained from cows on the dairy farms in the Matamata, and there has been a very satisfactory yield in the crops. In the Opouriao Settlement, also, the factories have had excellent seasons, and substantial crops have been produced.

One settlement, known as Teasdale, and situated near Te Awamutu, constitutes a class by itself. It is subdivided into small lots similar to suburban sections. When it is all occupied it will no doubt fulfil the purpose for which it was intended—that of residential sites.

The third class of settlement land consists of sections in the vicinity of Auckland, not quite close enough to be called suburban areas, but sufficiently near to permit lessees to make their homes and yet come into the city if their employment is in town. They are known as “workmen’s homes,” and should not be confused with “workers’ dwellings.” The “dwellings” are built on small sections close to the city, under quite a different statute, and are intended purely as homes for workmen in a healthy locality and at a reasonable rent.

There are six of these hamlets, but two only can be considered successful. On these the selectors are engaged in market-gardening, fruit-growing, and poultry-farming, with considerable success. The absence of progress in the others is partly due to the quality of the land and partly to the fact that the areas are not sufficiently large to render the holdings self-supporting.

Notwithstanding the partial failure of the smaller classes of settlements to meet the purposes for which they were intended, in a criticism or review of the lands-for-settlements system the results must be gauged by settlement-land proper—that is, lots which have been disposed of in areas which constitute reasonably large farms that might be expected to be self-supporting. The success which has attended settlement on these areas is undoubted, and the tenure has been the means of helping many settlers to acquire farms which now return them a comfortable living. The estates which have not yet shown any indications of progress have been, as a rule, affected by conditions of an adverse nature which no statutory provision could provide against.

In regard to the financial position of the settlers, the returns show that, although there is an increase in the number of selectors on the books, there are fewer settlers in arrear this year than in the previous twelve months.

JOHN STRAUCHON,
Commissioner of Crown Lands.

HAWKE'S BAY.

The only new selections under this heading taken up during the year were eleven sections in the Raumati Settlement, some of which were withheld from selection at the time the settlement was opened pending the expiration of timber-cutting licenses; these have now been leased.

In dealing with this subject I find it necessary to divide the report into two parts—*i.e.*, Hawke's Bay and Poverty Bay—as, owing to the nature of the country to the southward of Napier differing in some respects from that to the northward, the conditions of settlement differ to a certain extent.

In the southern portion of the district are to be found lands adapted to nearly every kind of farming, in some instances suitable and used for stock-raising purposes only, while others are suited for dairying, cropping, fruit-culture, &c.

In the first class may be mentioned the settlements of Argyll, Lindsay, Hatuma, and others, at which, at the present time, the abnormal growth of feed promises well for the winter season. Farm produce of all kinds is now harvested in large quantities, and can be procured at very reasonable prices.

In the smaller settlements, such as Mahora, Raureka, and Tomoana, dairying, fruit-growing, and mixed farming are the principal sources of income, and have yielded very satisfactory results for the year's labour. In these localities from 10 to 15 tons of potatoes to the acre is not an uncommon crop.

Bee-keeping and poultry farming are also on the increase, and promise, under careful and capable management, to be important items in the incomes of those settlers who follow them up.

At the Agricultural and Pastoral Society's biennial shows at Hastings our settlers are generally included amongst the prize-winners for exhibits of agricultural produce of various kinds.

The drawbacks generally experienced in new settlements with regard to schools have been ably met by the Education Department, as instanced at Mangatahi and Tamaki, where suitable school-buildings have been erected, and arrangements are now being made for one at Raumati.

The roads through the settlements are practically all formed, and for the most part metalled. The district generally is capable of further development in agricultural farming than is at present the case, which is apparently due to the comparatively easily derived profits from sheep-farming. Dairying is usually resorted to by the smaller settlers when wool and mutton are low in price.

In the Poverty Bay portion of the district there are now six settlements—namely, Pouparae, Waimare, Willows, Wigan, Te Arai, and Kanakanaia respectively—having an area of 27,405 acres, divided into 125 holdings, carrying a population of 456 persons. The value of the improvements required by the Act amount to £24,003 16s. 10d., whereas those effected are valued at £55,821 8s. 8d., which is most satisfactory evidence as to the energy and enterprise of the settlers. Included in the improvements are 202 buildings erected at a cost of £26,385. Many of the settlers in the Pouparae, Waimare, and Willows Settlements have to add to their incomes by casual work round the neighbourhood, their holdings being of insufficient area to entirely support them.

Upon a recent visit to the Te Arai and Kanakanaia Settlements, which were only established last year, I was pleasantly surprised at the wonderful progress made during so short a period. Many comfortable homesteads were in occupation, most of them well fenced, and in some cases divided into suitable paddocks. Considerable areas were under crop—oats, maize, turnips, rape, &c.—all of which were looking remarkably well.

Dairying was being carried on in some instances—a few settlers milking from twenty to thirty cows apiece; but with the present price of wool and stock most of the settlers confine their attention to sheep-farming.

There can be no question that, speaking of the Hawke's Bay district as a whole, the settlements generally are in a healthy and prosperous condition, and they afford a striking example of the success of the closer-settlement policy.

The present stringency of the money-market prevents many a good settler from taking up land, as he cannot now get advances on stock, &c., as could be done a comparatively short time ago. However, on the whole, there has been a steady advance in settlement in the district, and the right class of settlers, who, notwithstanding the fact that the outlook is not at present as bright as could be wished, are still full of energy and in good heart.

In closing this report I wish to acknowledge my indebtedness to the Rangers at Napier and Gisborne for the assistance they have rendered me in compiling the same.

HENRY TRENT.
Commissioner of Crown Lands.

TARANAKI.

The land-for-settlement estates in this district comprise the Tokaora, Clandon, Huinga, and Spotswood. The three former are all occupied, with the exception of one section, and the tenants devote themselves almost entirely to dairying, with generally successful results, and there is every indication of their continuing to do so. With regard to Spotswood, many sections still remain unselected, and there is no immediate prospect of them being taken up under anything like favourable conditions. The sections under lease are held by people who are employed on various works in the neighbourhood.

FRANCIS SIMPSON,
Commissioner of Crown Lands.

WELLINGTON.

The remarks regarding the progress of settlement upon ordinary Crown lands apply also to land-for-settlements holdings, with this marked exception, of course: that the latter comprise from the start lands all more or less improved, and that the tenure in all cases is leasehold only, without any right to purchase. I have visited all the settlements with the exception of two small ones, and I was much impressed with the progress made and the splendid stamp of settlers that I found in occupation. The whole of the settlements in the Wairarapa district are devoted to mixed farming—the higher lands for grazing purposes and the lower for dairying and agricultural purposes. In the neighbourhood of Wellington the land is used generally for fruit-growing, market-gardening, and residential purposes.

On the west coast the settlements are chiefly in the Feilding, Bulls, and Lower Oroua districts, and these are seemingly even more prosperous than the east coast—Aorangi being the most marked. These may be said to be used exclusively for dairying, cropping, and fruit-growing.

JAMES MACKENZIE,
Commissioner of Crown Lands.

NELSON.

Wangapeka Settlement.—This settlement was established on the 26th June, 1907, and contains an area of 6,263 acres, subdivided into fifteen allotments. Improvements effected during the past year show that a great deal of good and useful work has been accomplished by the tenants in felling and sowing scrub land, fencing, and ploughing. The seasons have been very favourable, rape, turnips, and oat crops being exceptionally good. On the purely pastoral portion of the settlement there has been an abundance of feed. Stock have done remarkably well, and satisfactory prices have been obtained for them. Wangapeka Settlement has been only two years in existence, yet it is in a very advanced state, the factors in its favour being a locality suitable for mixed farming and the superior quality of the settlers.

Braeburn Settlement.—This settlement was established in May, 1908. It is situated in the Mangles and Tutaki Valleys, distant eleven miles from the Township of Murchison by good dray-road, and 110 miles from the City of Nelson, fifty-four miles of the distance being by road and the remainder by the main coach-road Nelson to Westport. The area of Braeburn Settlement is 18,063 acres, 2,500 acres of which is good flat agricultural land formerly comprised in the Braeburn Estate, the remaining portion being undulating to hilly land, covered with bush, well adapted for pastoral purposes when cleared. Of the twenty-one farms into which the property is divided, twelve are occupied, the annual rental being £781. The prospects of this settlement are very good,

judging by the quality of the land and the activity of the settlers. The establishing of this settlement is in a sense an experiment, in that about four-fifths of each allotment is forest land, the remaining fifth being open country. That the settlers are energetic and enterprising is evidenced by their decision to establish a creamery in conjunction with the proposed dairy factory at Murchison. They have guaranteed 150 cows. Braeburn has all the essentials of a bright and cheery settlement, and I have no doubt of its progress and ultimate success.

F. W. FLANAGAN,
Commissioner of Crown Lands.

MARLBOROUGH.

I have the honour to report shortly upon the present position, progress, and prospects of the settlement estates (of which there are nine) within the Marlborough Land District, containing a total area of about 115,000 acres. This area directly supports about a thousand persons, and is scattered about Marlborough generally; but the largest and by far the most important block is situated between the Awatere River and the east coast; this has an area of about 94,000 acres, and is composed of the Richmond Brook, Starborough, Blind River, and Flaxbourne Estates, and although chiefly pastoral land, has a large area of good agricultural land, where a considerable quantity of barley, oats, &c., is grown. Although it may generally be considered a dry area, very fair results have been obtained from cropping, the past season being rather a favourable one for this class of farming; but, unfortunately, part of this country suffered considerably by caterpillars, which in many instances ruined nearly the whole crop. The price obtained for grain and chaff has been very disappointing when compared with last year's returns, but, on the other hand, wool has been higher, and I think I am right in saying that owing to the moist season this part of Marlborough has never produced so many fat sheep and lambs, and, although these did not command a very high price, they must have yielded a fairly satisfactory return to the owners. Cattle do not appear to be much kept in this central block, possibly from the generally exposed nature of the country or the little profit obtainable from them; on the other hand, the one small settlement at Kaikoura is used almost exclusively for dairying, and appears to be well adapted for it, owing partly to the richness of the land and partly to the proximity to a very fine cheese-factory.

The total number of persons residing upon Settlement lands at the date of this return, exclusive of floating population engaged on the railway and road works, is 1,026, or an increase of seventy-one over last year's return.

The total number of sheep depastured on the 115,000 acres is 98,457, an increase of 508 on last year; total number of cattle, 1,265, practically the same as last year's returns; the number of horses, 1,124, as compared with 963 last year, an increase of 161; the number of pigs was 230, an increase of 115. The land in white crops this year is 9,348 acres, as compared with 6,719 acres last year, an increase of 2,629 acres; total area in green crops, 6,333 acres, against 4,483 acres last year, an increase of 1,850 acres; and the total area under cultivated grasses is 26,852 acres, against 23,951 acres last year, an increase of 2,901 acres. It will be observed that, although all the stock except cattle show a small increase, there has been a considerable increase in the area of both white and root crops, without any reduction of the number of stock kept.

By last year's return the total improvements were valued at £119,411; this year's return puts them down as £159,261, an increase of £39,850.

As the prosperity of these settlements is necessarily very largely dependent upon so many things over which we have no control, such as climatic conditions and market prices of stock and farm produce, it is very difficult to give even a fairly reliable forecast of their future prosperity. It can, however, be safely stated that we have here a very fine class of settlers, and, unless the conditions are decidedly adverse, they may reasonably expect to do better in future, especially in the Flaxbourne Settlement, because it is anticipated that the railway will be opened up nearer the settlement at an early date, and it may reasonably be expected that the caterpillar pest will not recur two years in succession.

F. STEPHENSON SMITH,
Commissioner of Crown Lands.

WESTLAND.

Good progress has been made and good results obtained by the tenants on both Poerua and Kokatahi Settlements. Very little cropping is done on either settlement. The holdings are used for grazing, the only crops grown being used for feed. The oaten and meadow-hay crops have been well saved, and there should be no shortage of winter feed. Eighteen out of a total of twenty-six tenants are supplying milk to the factories, which are conveniently situated to both settlements, and very satisfactory results are being obtained. The combined herd of dairy cows totals 336, a number of which have been bred from good imported stock. The remaining eight tenants are utilizing their holdings for rearing and fattening stock for the market.

G. J. ROBERTS,
Commissioner of Crown Lands.

CANTERBURY.

LANDS OPENED DURING THE YEAR.

One new estate, known as the Culverden Settlement, has been acquired and disposed of during the year. This estate, which comprised a total area of 25,829 acres, is situated about sixty-nine miles northward from Christchurch, at the present terminus of the main north line of railway. Twenty-five sections, comprising an area of 22,654 acres 3 roods, were opened for selection by public application; three sections, containing 2,627 acres 3 roods (which were selected by ballot out of the settlement), were allotted to employees on the estate; and two sections, comprising 282 acres 3 roods 15 perches, were granted to the holders of leases from the former owners. The lands comprised in the Culverden Township and some small adjacent areas were held over for later disposal.

For the twenty-five sections, comprising 22,654 acres 3 roods, which were opened for application on the 19th June, 1908, 793 applicants lodged 983 separate applications, covering the whole of the sections offered. In the subsequent examination by the Land Board 107 applicants were rejected for various reasons. The largest number of applicants that entered the ballot for any one section was ninety-six, and the smallest three. The whole of the sections were allotted at the first ballot, but two of the selectors subsequently surrendered their holdings, and these two sections, comprising 2,564 acres 1 rood, were reoffered on the 2nd September, 1908, and immediately selected.

The Culverden Township lands, comprising 80 acres 3 roods 3 perches, in thirty-three sections, were opened for selection on the 27th January, 1909, under the renewable-lease system, and nine sections, comprising 20 acres 1 rood 29 perches, have been selected. Five sections, comprising 3 acres, had previously been allotted to the holders of leases from the former owners.

PAYMENT OF RENTS.

The arrears of rent owing on the 31st March, 1909, are considerably more than usual, owing to the fact that permission has been granted to most of the holders in the Kinloch Settlement (who have experienced considerable difficulties in the initial stages of their occupation) to postpone payment of the two half-years' rent which became due on the 1st July, 1908, and 1st January, 1909, and the former of these therefore appears in the returns as rent in arrear. The exclusion of the arrears on this settlement would bring the total for all other settlements down to £796, owing by thirty-nine tenants, this amount being slightly under 1 per cent. of the total annual rent-roll.

In July, 1908, very severe floods were experienced in South Canterbury, and in some cases caused considerable damage to Crown leaseholds, principally in the Waikakahi Settlement.

During the year rebates for punctual payment of rents due were granted to 1,149 tenants, the total amount granted being £6,621 9s. 2d.

CONDITION OF ESTABLISHED SETTLEMENTS.

A general review of the reports received from the Crown Lands Rangers on the condition of the forty-nine established settlements within the district again emphasizes the previous reports as to the valuable extent of *bona fide* settlement that has been secured by the operation of the Land for Settlements Acts in Canterbury. The extremely small proportion of tenants who have failed to fully comply with the obligations of their leases reveals a highly satisfactory condition of affairs, and in most of these cases the default consists merely in failure to bring improvements up to the full value required by the terms of the leases, a defect which experience shows will be remedied in nearly all cases as soon as settlers' means and the requirements of their holdings will permit. From one end of the district to the other the Rangers find, with few exceptions, a prosperous and contented tenantry, for the most part farming their holdings and maintaining their improvements in a manner at least equal to that achieved by occupiers of freehold lands. The subdivision of the large estates which formerly comprised many of the settlements has resulted not only in an enormous increase of the value placed on the land in the form of buildings, fences, and other permanent improvements, but also in a very marked and gratifying increase in the productiveness of the soil, owing to the bringing into cultivation of fresh areas or the renewing of pastures, resulting in an increased output both of crop-products and of stock.

The Ranger's report on the Culverden Settlement, which was established in June, 1908, shows that every one of the rural tenants is residing; twenty new dwelling-houses have been erected, and the total value of new improvements effected is £9,180. Including families resident on township leaseholds, the population of the settlement is 143 souls. The number of sheep shorn was 17,548, and the lambing averaged about 90 per cent.; 575 acres was in grain crops, and 1,322 acres in root or green crops; the latter yielded fair returns, but oats, which formed the bulk of the grain crops, were put in too late in the season, and only gave poor returns. The tenants generally appear to be practical farmers, and to be hopeful of success.

The other settlements in North Canterbury are progressing satisfactorily, and generally are in a prosperous condition, and the requirements of the leases are well fulfilled. Crops have yielded fair returns, somewhat diminished in a few cases by the ravages of caterpillar pest.

The two settlements in the vicinity of Little River, Banks Peninsula—namely, the Morice and Kinloch Settlements—established in September, 1905, and March, 1906, respectively, can hardly yet be described as having assured prospects of success. In the Morice Settlement the holdings are used principally for dairying and grass-seeding; the former has given fair returns, but the price of the latter had fallen off. In the Kinloch Settlement most of the holdings are used exclusively for sheep-pasturage purposes, and difficulties of access, adverse weather conditions, and high rents have combined to prevent the settlers from making much progress. A good many of the

settlers are now applying to exchange their leases in perpetuity to renewable lease under revaluation, as permitted by section 191 of "The Land Act, 1908"; two of the exchanges have already been completed, and have afforded the tenants a considerable reduction of rent, and other applications of the same nature are now being dealt with.

In the mid Canterbury district, from the Rakaiia River to Temuka, the reports on the settlements are of a uniformly satisfactory character, disclosing excellent compliance with conditions both of residence and improvements, the holdings, which are used principally for agriculture and mixed farming, being well worked, and the tenants generally prosperous and contented.

The Ranger for the South Canterbury district states that the past season has proved to be one of the best experienced. Grain crops have yielded well, root crops are beyond the average, and there is abundance of feed. The settlers generally are doing well, possessing comfortable dwellings and well-laid-out homesteads and gardens, evincing the prosperity that has attended the settlement of a good class of tenantry on the excellent farming country of South Canterbury. The settlers generally practise mixed farming, accompanied by dairying in localities where creameries have been established; they pay attention to the cleaning of their lands, observe a good system of cropping, and keep their holdings generally in excellent order. On many of the larger sections especially, even on the older established settlements, the lessees continue to add excellent and valuable permanent improvements, and, although in a few cases the value effected is not up to the amount required by the terms of the leases, these are principally cases in which the sixth year of occupation (requiring the maximum value of improvements) has recently expired, and the lessees will no doubt before long bring their values up to the required standard. The Ranger notes that in many of the settlements the settlers, as their circumstances improve, are taking a greater interest in the planting of fruit and shelter trees. In some of the older settlements there is a decrease in the number of souls resident, due to the fact that a number of children have grown up and gone out to work, some of them having been successful in ballots for Crown lands in other districts.

As regards the small settlements in the vicinity of Christchurch, the Ranger's reports show that these are generally in a very satisfactory condition. Most of the sections are in a high state of cultivation, and in many cases the settlers carry on market-gardening and fruit-culture. Very comfortable little homes, displaying a fair amount of artistic taste, have been created on many of these small allotments, which have enabled artisans, small tradesmen, gardeners, and others to establish themselves on convenient holdings in the neighbourhood of the city at very moderate rents. The satisfactory results achieved generally on these settlements appear to fully warrant an extension of the system of providing suburban holdings of small areas for the artisan and labouring people near to the chief centres of population.

ERIC C. GOLD SMITH,
Commissioner of Crown Lands.

OTAGO.

During the year two new settlements were disposed of—viz., Meadowbank, on the 22nd April, 1908; and Kauroo Hill, on the 8th March, 1909. The two estates comprised a leasing area of 23,497 acres, of which 23,272 acres was selected on renewable lease and the balance on miscellaneous license, the whole being subdivided into forty farms.

The settlers holding land under the Land for Settlements Act in Otago are, speaking generally, making steady and satisfactory progress. In the early part of last year the settlers, especially in North Otago, were under the disadvantage of suffering from a very severe and prolonged drought, which made their prospects anything but bright. The land was baked and dry, making ploughing very difficult in anything but stubble land, it being almost impossible to make any headway in lea land, the consequence being that there was not in North Otago a large area sown in winter wheat. In July climatic conditions underwent a complete change, nearly all of Otago, as well as Canterbury and elsewhere, being visited by a perfect deluge of rain on the low country and by heavy snow on the ranges and throughout the interior, which lasted for three days and resulted in heavy floods, which did a considerable amount of damage on the low-lying lands to both crops and fences. At the time, the damage done looked bad enough, and no doubt in some cases the land will take years to recover, but in many cases the vast amount of good which was undoubtedly done by the thorough soaking will in a great measure compensate for the damage done. In South Otago the drought of the earlier part of the year was not so apparent, and, although the land was unusually dry for that time of the year, farming operations were carried on without the difficulty experienced in the north. After the rain large areas of land were broken up and sown in grain, and root crops have, on the average, produced fair yields, while later on the grass came away well and provided abundance of feed. The wheat-crop in North Otago has not been so heavy, being quite 10 bushels below the average of former years, but the price, being a good payable one, will to some extent make up for the deficient yield. The oat-crop has been fairly good, although not up to the average of past years; and prices for this crop are very low, being hardly payable when taking into consideration the high price paid for seed and the difficulties and price of labour.

The root crops are, on the whole, good. In South Otago, on the other hand, the crops both in wheat and oats generally have been very good, and the yield should be well up to the average of former years. The root crops have been generally good, and will provide plenty of feed well into the coming year. The fine rains of the winter and the growth of feed following in the spring have

been the means of greatly assisting the dairy industry, which received a big set-back the previous year on account of drought. Farmers are now in a position to milk a very much larger number of cows, adding greatly to the milk-supply of the various creameries, which results in a very large monthly distribution of ready money.

The freezing of lambs has now become an established industry in Otago as well as elsewhere. The keen rivalry of the buyers sent out by the various firms and agents results in the highest prices being obtained by the settlers, increasing their income and providing them with the ready money so necessary for the following harvest. I think it may be safely said that the settlers in Otago, especially on the older established settlements, are progressing in a very satisfactory manner, and there is every reason to expect that those on the newer settlements will do quite as well after they are properly established on their holdings. The residence and improvement conditions are, generally speaking, being well carried out. This is especially noticeable on the Otekaike Settlement, which has been settled only a little over a year, and where the improvements are of a very substantial character, consisting of buildings and fencing (many miles of the latter having been erected), and there are very few settlers who are non-resident.

D. BARRON,
Commissioner of Crown Lands.

SOUTHLAND.

The operation of the system brought in by the Land for Settlements Acts has not been very extensive, but has been fairly successful. Up to the present time six estates have been purchased and opened up for settlement, of an aggregate area available for selection of 53,407 acres, and of this area only 353 acres remain unselected. The first settlement—Merrivale—was offered in 1895, after which followed, at intervals of from one to two years, Otahu, Beaumont, Ringway, Glenham, and finally, in 1904, Edendale, the largest and most successful of all. These settlements have provided homes for over two hundred and fifty selectors, who with their families number close on one thousand souls. For the most part, the original selectors have proved to be a fine class of settler, and the standard is well kept up where, by transfers, others have taken their place. The number of transfers that have taken place during the last year is twenty-three. In almost every case, in changing hands, a large amount has been paid by the incoming tenant by way of goodwill.

Improvements to the value of about £68,000 have been effected, and at the present time over 50 per cent. of the land is in grass or crop (white and green). The improvements in the way of fencing and draining are of a very substantial and permanent character, and in many farms a high state of cultivation is attained. Under the Act a certain amount of improvements is necessary, but at the present time this amount is exceeded by £36,745. A conspicuous feature of the improvements is the up-to-date nature of the steadings.

The old style of farmhouse—generally uncouth and often uncomfortable and insanitary—has given place to a modern house, convenient, compact, and generally of slightly, if not ornamental, appearance, which often has good surroundings in the way of gardens and orchards. The outbuildings are mostly of a substantial nature, and, in the case of the byres, are kept up to the fairly stringent requirements of the dairy regulations. Much good work has been done by draining and tilling in bringing into use the swamp lands, while the free use of lime has vastly improved much of what was considered the poorer lands in the settlements.

The class of farming carried on is mixed, but chiefly dairying. This year where land has been cropped the results have been very good, yields of oats up to 110 bushels to the acre having been obtained, while the green crop is well up to the usual high standard of Southland. Those settlers who go in for dairying may well be proud of their clover and grass paddocks, which enable them to get large profits from their milking-herds; and they are well off in the way of dairy factories, which can take as much milk as can be supplied. The dairymen are fully alive to the advantages of the milking-machines, there being many instalments on the farms.

In connection with the Edendale Settlement there are three factories, the principal one being a private one and the other two co-operative. They are capable of dealing with a large yield, as much as 13,000 gallons having been delivered at the Edendale and Brydone Factories in one day. The first-named factory has the honour of turning out some of the best cheese manufactured in the Dominion. At Glenham there is a factory owned by the Government, but which is used by the settlers and run as a co-operative concern. The other settlements depend on outside private factories to take their milk-supplies.

The Ranger's reports show that the conditions of lease have been well acted up to by the settlers generally, and that there has been no desire to evade them, while the general progress of the settlements has been very satisfactory and fully up to the rate of former years.

The advantages offered in the way of borrowing from the Advances to Settlers Department have been taken advantage of by 118 settlers, who have borrowed to the amount of £15,000. This amount is small in respect of the security, and represents the bulk of the money borrowed.

The past two seasons in Southland have been very favourable to farmers, and, though present prices are not so good for stock or produce, the end of the year finds the bulk of our settlers prosperous, contented, and hopeful.

E. H. WILMOT,
Commissioner of Crown Lands.

APPENDIX III.—REPORT ON THE TIMBER INDUSTRY IN THE AUCKLAND LAND DISTRICT.

THROUGHOUT the year the demand for kauri timber has been well maintained. Inquiries for other kinds have slackened off somewhat. Orders for first-class kauri are ever present, so is the difficulty of obtaining a continuous and adequate supply of logs, owing to the increasing remoteness of the forests, which are now generally situated in country too rough and unsuitable for tramways. This necessitates numerous dams and booms costly to erect and maintain, also large expenditure in blasting boulders and clearing rough creeks; and, as the delivery is solely dependent on the rainfall, delay and deterioration ensues. This, with the loss in breakages, risk and loss through fires and floods, and numerous other disabilities, renders the production of kauri timber expensive—so much so that there seems no possibility of the present market value being reduced.

With few exceptions, most companies are depending more or less on Crown forests to supplement their supplies of kauri, and five parties of timber-measurers have been constantly employed in preparing timber for disposal. One of these parties (Mr. Campbell's) has been temporarily lent to the Tokerau Maori Council during the latter part of the year to complete measuring commenced by the Department of about 50,000,000 ft. of various kinds of timber on Motatau No. 2 Block.

To obviate unnecessary waste, all milling-timber in the various forests is now included in sale.

Small clumps, fringes, and remnants, especially if adjoining present bush-workings, also residues on abandoned leases and cutting-areas, received special attention. In this connection priority is given to applications, thus sawmillers' requirements are met as far as practicable.

With a few exceptions, all lots offered were disposed of, mostly with a slight margin over upset prices.

During the year nine sale plans were prepared and issued locally, comprising thirty-five lots, of which twenty-three were disposed of, containing various kinds of timber, aggregating 31,185,965 sup. ft., value £29,113 5s. Royalty received, £42,760, being an increase of royalty of £1,156 over last year.

The following table shows the various kinds of timber disposed of during the year:—

—	Kauri.	Rimu.	Kahikatea.	Totara.	Matai.	Miscellaneous.	Total.	Value.	Royalty received.
	Sup. ft.	Sup. ft.	Sup. ft.	Sup. ft.	Sup. ft.	Sup. ft.	Sup. ft.	£ s. d.	£ s. d.
Crown lands ..	8,929,314	1,440,337	482,657	640,585	44,275	170,425	11,707,593	10,775 14 11	14,212 12 10
State forests ..	12,919,970	1,461,967	1,108,432	150,348	..	..	15,640,717	17,069 14 5	27,609 11 11
Land for settlements ..	..	2,356,059	113,715	23,077	17,693	1,327,111	3,837,655	1,267 15 8	938 10 3
Totals ..	21,849,284	5,258,363	1,704,804	814,010	61,968	1,497,536	31,185,965	29,113 5 0	42,760 15 0

Sections loaded with value of timber:—

..		280,533		110,000		790,000		81,733		9,000		..		1,271,598		503 1 8		..
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Timber measured and disposed of for Education Department:—

..		69,688			69,688		65 13 10		..
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In addition to the above, the following quantity was measured on Motatau No. 2 Block, for the Tokerau Maori Council:—

..		1,156,558		1,676,642		18,970,798		377,980		738,948		1,122,663		24,043,589	
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Total quantity measured during year, 56,570,840 sup. ft.

Export of Timber from 1st April, 1908, to 31st March, 1909.—From Kaipara: Kauri 9,880,338 sup. ft., value £52,102; kahikatea 19,599,511 sup. ft., value £72,719; other kinds 117,904 sup. ft., value £413: total, 29,597,753 sup. ft., value £125,234. Auckland and other ports: Kauri 13,583,727 sup. ft., value £89,681; kahikatea 16,533,399 sup. ft., value £63,157; other kinds 707,642 sup. ft., value £2,374: total, 30,824,768 sup. ft., value £155,212. Grand total, 60,422,521 sup. ft., value £280,446; being a decrease over last year of about 3,000,000 ft. in quantity, but an increase of about £4,000 in value.

Imports of Timber, Auckland District.—From 1st January to 31st December, 1908: Kaipara, 150,388 sup. ft., value £1,566; Auckland, 10,063,670 sup. ft., value £60,534; being an increase of 7,553,268 sup. ft., value £36,634, over a similar period for previous year.

The most noticeable feature in connection with the timber industry is the quantity of Oregon pine imported during the period. In view of the increasing difficulty of obtaining full supplies of kauri, the introduction named is a necessity in this district, as the timber under notice, although not equal to, is for many purposes an excellent substitute for, kauri, and stocks of Oregon on hand enable sawmillers, by recutting or otherwise, to sort up or execute orders promptly, thus obviating delay or disappointment to builders and others.

Timber-floating.—Nineteen new licenses were granted, 50 renewals were granted, 12 transfers were approved, and 21 fresh licenses issued. As far as is known, all persons engaged in the industry are complying with the conditions of the Timber-floating Act.

Bush-fires.—Two fires occurred in Pukete Forest, and one at Kauri Park. The former were put out by the Caretaker and timber-measurers, after passing over about 10 acres and scorching some three hundred kauri-trees. As the portion affected is under preparation for disposal, the damage is unimportant. With regard to Kauri Park, about one-third of the standing bush has been scorched during this and previous years, and the remainder will in all probability be seriously damaged as soon as the adjoining standing bush is being worked. This shows how difficult it is to preserve kauri forests, especially when adjacent to close settlement or standing bush, as in the present instance. Should any further damage ensue it may be found desirable to dispose of the whole of the timber in the park.

Gathering Gum, Waipoua and Warawara State Forests.—Referring to last year's report, I have to state that small contracts for the above have been completed, and it is not proposed to renew them for the present, but to utilise a portion of the Warawara Caretaker's time for the purpose of stripping gum as circumstances permit. The amount of gum disposed of during the period is as follows: Waipoua—2 tons 17 cwt. 1 qr. 20 lb.; amount realised, £99 6s. 6d.; Warawara—11 tons 7 cwt. 3 qr. 13 lb.; realised, £549 5s. 4d.; total amount realised, £648 11s. 10d.

There still remains in the hands of the gum-brokers at Auckland for disposal about $1\frac{1}{2}$ tons second-class, and about $2\frac{1}{2}$ tons unassorted, gathered by the Caretaker, and still in Warawara Forest. This will be dealt with in due course.

JOHN STRAUCHON,
Commissioner of Crown Lands.

APPENDIX IV.

THE MOUNTAINS OF THE TONGARIRO NATIONAL PARK: AN ACCOUNT OF THEIR MANY ATTRACTIONS, WITH NOTES REGARDING THE VARIOUS ROUTES, AND MAPS ILLUSTRATING SAME.

[By H. E. GIRDLESTONE, Assistant Surveyor.]

THE Tongariro National Park, taking in the mountains Ruapehu, Ngauruhoe, and Tongariro, and the surrounding country, possesses a greater variety of scenery than any tract of the same area in New Zealand. Since the opening of the Main Trunk Railway, its many beauties have been brought before many hundreds of people, but very few have taken the opportunity of exploring for themselves the very many places of interest within easy reach. It is here intended to give a description of the routes generally followed, with notes as to times taken, camping-places, and points of interest.

December is the favourite month for visiting the mountains, when the days are long, though the ideal day is after a frosty morning about March. Bush-fires during February prevent anything like a good view being obtained of the surrounding country. In December there is still a large amount of snow on the mountains, and travelling over the snowfields is quite an easy matter, but in March most of the loose snow is gone, and only the hard glacier-ice is left, which cannot be crossed without an ice-axe, so that most of the climbing is done up the rocky spurs.

The following is an account of a trip occupying five days from Waiouru made by a small party one Christmas holiday, which takes in most of the principal points of interest:—

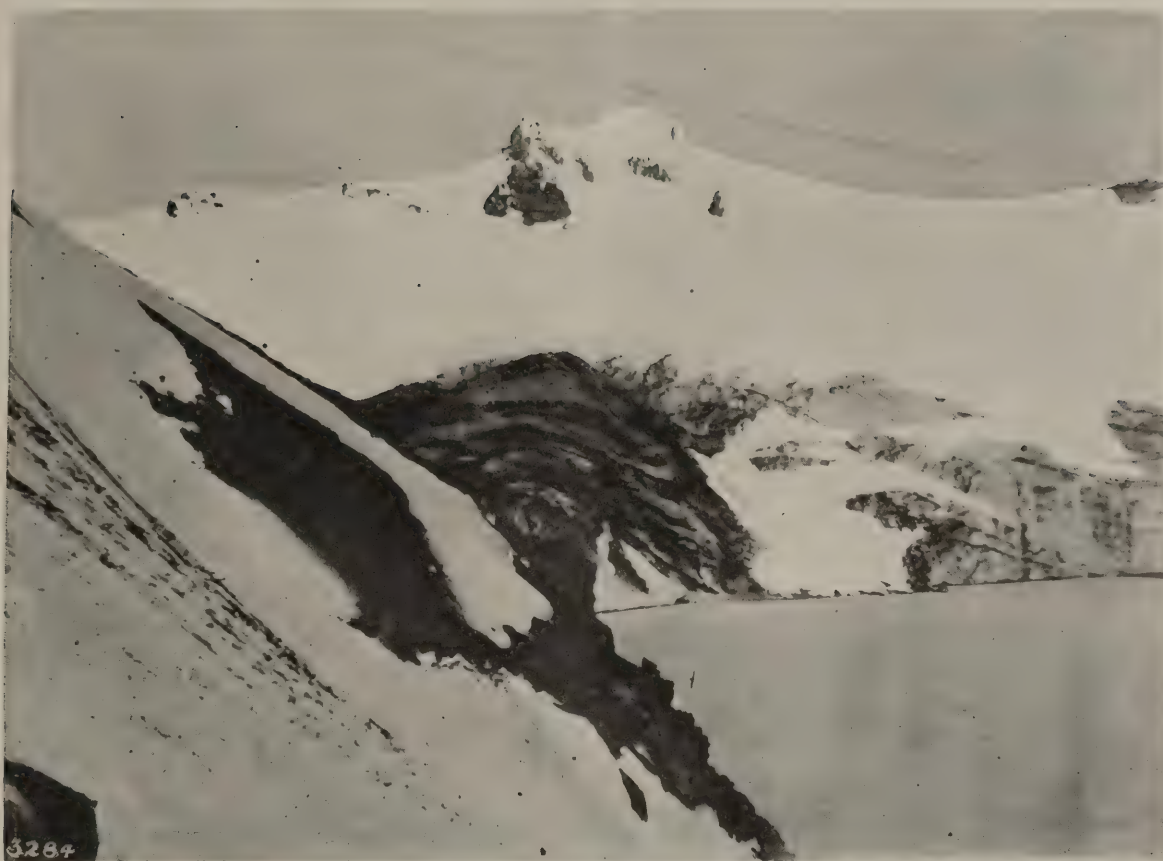
The party met at Waiouru on a Friday night, bringing rugs and personal necessities, and obtained stores from the proprietor of the accommodation-house.

First Day.—Left Waiouru on the following morning about 7 a.m. by coach which runs to Tokaanu. Leaving the coach at the nineteen-mile peg, the party walked from there to the hut, which is about four miles distant from the main road, across almost level country. The Ruapehu hut is beautifully situated in a sheltered position, with a large belt of bush immediately behind it, and the Waihoonu Stream passing about 5 chains in front. It is built of corrugated iron, double thickness, lined with pumice, and consists of two rooms, one of which contains a large fireplace. The floor is bare pumice, and there are three bunks in one room and two in the other. About half a mile away, to the south-east of the hut, is the source of the Ohinepango Stream, which is crossed lower down by the road to the hut. Here a large body of water comes bubbling up out of the ground at the foot of a bush-clad terrace, forming a long narrow pool of beautiful green-tinted water before it rushes away in a foaming mountain-torrent across the plains. The whole place reminds one very much of the Hamurana Spring at Rotorua. After having a good look around there, the party crossed over to the north into the bed of the Waihoonu and followed it up through the bush back to the hut, getting some charming peeps on the way.

Second Day.—Next morning by 4.30 a.m. we were well on our way for Ruapehu. For about two miles or more from the hut the tussock has been chipped off, making a track about 3 ft. wide, with large poles stuck up about every 5 chains. This leads up towards the main spur running up to the north peak (Te Heuheu), and by the time the track dies out, when the vegetation is left behind, there is no danger of getting off the proper route. There is a steady rise until a small saddle is reached about six miles from the hut, and from here to the top the climbing is fairly steep. We climbed steadily up a rocky spur with large snow-filled valleys on both sides, and kept to the spur until a little rocky knoll was reached a few hundred feet below the north peak. From here a snow-slope stretches upward, terminating in a perpendicular cliff about 100 ft. high, facing the north, but running away into the snowfields to the west. A detour was made to avoid the cliff, and,

crossing the snow-slope to our right, it was found to be in splendid order for walking on, and after zigzagging upwards a few times we found ourselves on the north peak, having taken about five hours and a half from the hut. The view from here to the north is magnificent, the panorama taking in Ngauruhoe, Tongariro, the Waimarino Plains, Lake Taupo, and all the bush country for many miles around. The view of the other peaks, snowfields, and cliffs to the south is a most interesting one. The crater-lake on Ruapehu cannot be seen from the north peak, but the basin in the snowfields, with the edge of the ice slopes down to it, can be easily distinguished. After leaving the north peak the descent was by a snow-covered spur to the west running down to an almost level snowfield reaching right up to the lake. In about twenty-five minutes' walking across snow we reached the lake. In previous visits this was a beautiful blue-green colour, and some of the party who slid down the snow-fall on the east reported that the water was only just lukewarm; but this time the whole place had the appearance of having been churned up, and steam was rising from the surface slightly, though this would probably happen at a very low temperature up there. An advance was then made over towards Paretaitonga Peak, which is the second highest on Ruapehu, being 9,025 ft., the highest point being Ruapehu Peak, 9,175 ft., to the south of the lake. This can easily be ascended by following on round from Paretaitonga across a snowfield and up a spur to the summit, if time permits. A good many who have climbed by the north peak have returned the same way, but by far the most interesting return journey is made down the Wangaehu Glacier and across country. Intending to go this route, a start was made down the steep snow-covered slope running immediately from the north end of the lake, all being roped together for safety in case of hidden crevasses. Good progress was made, and not a single crevasse was encountered, although away to our left the ice was piled up in a heap, and cracked in a dangerous-looking manner. Descending, the cliffs to the south gradually became higher, and presented a mass of dark-looking rocks streaked with thin threads of snow, with small streamlets making fantastic cascades and waterfalls. It is at the foot of this glacier that the Wangaehu River takes its source, rushing out from a dark-looking cavern underneath the ice. No doubt there is a connection with the lake, as the Wangaehu water is about the same colour and temperature, and the lake always seems to keep the same level. We travelled down the glacier and came to where there is a sudden change in the slope, and here made over to the rocky spur to the north, eventually coming out at the foot of the steep part of the mountain, just where there is a pretty little waterfall dashing over the cliffs running into the Mangatoetenui. From here we followed around the foot of the cliffs and came to another larger waterfall on a branch of the same stream, and then kept down this valley for about two miles or so till a point was reached where another large branch joins from the mountain, another waterfall showing where it leaves the lowest cliffs. Here we left the stream and struck across country direct from Ngauruhoe, reaching the track up to North Peak just about where the last pole is stuck up at the vegetation-limit. Once on the track the hut was soon reached. This is a fairly long day's journey, and should not be undertaken unless one is used to walking. Those who are not in the best walking-condition would do better to have a good look round the summit, and return the same way they went up. The round trip was made the reverse way during the Christmas holidays of 1907, and a very interesting experience in the Wangaehu Gorge was the result. The party managed to get down into the gorge about the foot of the steep slope of the mountain, and followed up the water until they were hemmed in by high perpendicular cliffs. Continuing upwards, we reached where the snow had choked up the gorge, and, climbing up on to the top of this, felt our way with poles, as the whole place was undermined by water. We crossed a treacherous-looking snow bridge, and rounded a corner to find ourselves face to face with a very large waterfall. Climbing some rocks on the left, we found ourselves about 10 chains below the foot of the Wangaehu Glacier. During this excursion some magnificent views of Mount Egmont were obtained. An easy route to the summit for riding parties is up the spur between the Wangaehu and the Waikato basins to the foot of the steep part of the mountains. The horses should then be tethered, with a little feed, which would have to be brought, and by making up the Wangaehu Glacier the crater-lake is reached. A good camping-place for this trip is to be found near the main coach-road, not far from the twelve-mile peg, in one of the clumps of bush to the east of the road. In climbing Ruapehu, snow-goggles are absolutely necessary, as the reflection from the snow is very trying. Veils are also very beneficial, as the sun acting upwards from the snow catches under the chin and the nose, making them very painful. The most comfortable costume is knickerbockers and long stockings, with an extra pair of socks with the foot part cut off, put on and pulled down over the boot-tops to keep out scoria and snow. A light long-sleeved singlet is very good for climbing, but a thick woollen sweater should be carried to put on during halts. Good strong boots should be worn, with hobnails well scattered. If put too close together they act too much like a plate. An early start for Ruapehu trip is advisable, as the worst of the climbing is done before the sun gets too warm, and it also leaves plenty of time for exploring the summit and many interesting sights there. It also very often occurs that the top of the mountain clouds over in the afternoon, but by that time climbers ought to be on their homeward journey. On no account should the cold ice-water be drunk, as it is very bad for the heated body. If one must drink, put some snow in a hollow in a rock exposed to the sun, and wait until it melts and gets the chill off it; but it is much better to do without it whilst climbing.

Third Day.—A start was made with the idea of going across to the Ketetahi hut on the north side of Tongariro, and spending the night there. There is a horse-track between the two huts, marked with piled stones across the basins. This track keeps well to the right of Ngauruhoe, and crosses the old Oturere crater, but, as it was desired to ascend Ngauruhoe on our way, we followed the track across the Waihohehu, up a spur and down the other side, and continuing our journey almost straight for the low saddle between Ngauruhoe and Tongariro, arrived there about three hours after leaving the hut. At this point a start was made up the great side of the volcano. By keeping around to the west on a level grade for about 20 chains we struck a ridge of rocks,



THE CRATER LAKE, RUAPEHU.

[H. E. Girdlestone, photo.]



VIEW OF NGAURUHOE, WITH WAIHOEHOE STREAM IN FOREGROUND, FROM THE RUAPEHU MOUNTAIN HUT.
Face p. 42.

[H. E. Girdlestone, photo.]



THE WANGAEHU GLACIER.

[H. E. Girdlestone, photo.]



LOOKING INTO THE CRATER OF NGAURUHOE FROM CASTLE ROCK.

[H. E. Girdlestone, photo.]

and found this excellent climbing. In thirty-five minutes the break in the outer rim of the crater was reached. The view from here looking across Tongariro towards Lake Taupo was one to be remembered. All the points of interest on Tongariro stood out prominently, whilst beyond shone Lake Taupo reflecting the surrounding hills like a gigantic mirror. Proceeding up a slope to the right, we found ourselves on the edge of a small circular crater-basin, from which there were a few puffs of steam coming from amongst the stones at the bottom. We followed on around the edge of this and came to an enormous chasm against the south-west portion of the outer crater, a narrow razorback ridge separating it from the little crater to the north. There was a perpendicular drop from the edge of the outer rim right down into the awful depths. By getting on the top of a large boulder known as Castle Rock on the western edge, a splendid view of the great hole was obtained. It appeared to be about 10 chains across, circular in shape, with perpendicular sides about 500 ft. deep. We tried to gauge the depth by dropping stones and counting the time, but could only form a rough estimate. The bottom appeared to be an uneven mass of loose stones, and from all around the edge steam-jets were shooting out with a hissing noise. From the highest point, which is wearing away very fast, a splendid view of Ruapehu is to be obtained with the two Nga-puna-a-tama Lakes in the foreground. Descending to the low saddle between Ngauruhoe and Tongariro the journey was continued towards the Red Crater across the large southern crater of Tongariro. The basin of the latter is almost level, with numbers of small loose stones scattered about. A small rocky bar runs down from the eastern wall, and we climbed up this round the rim, and up a short steep slope to find ourselves looking into the Red Crater, so called because the scoria composing the walls is of a dull-reddish tint. The last occasion that this trip was made the party left the Red Crater, and followed the rocky ridge to the highest point on Tongariro immediately to the north of the Southern Crater. The view of Ngauruhoe from there is a glorious one, and is well worth the trip. The Blue Lake and track down to Ketetahi hut can easily be distinguished separated by the large Central Crater. On this excursion we travelled down the north side of the Red Crater examining the active steam-jet near the bottom, and then pushed on to the pretty little green ponds lying immediately below. From the Red Crater a lava-flow of recent times has pushed its way into the basin of the Central Crater, its dark, black-looking masses forming an interesting spectacle. The horse-track from the Ruapehu hut crosses the basin and cuts through a gap to the north on the way to Ketetahi. We crossed this and climbed the rocky ridge to the east, and were soon overlooking the Blue Lake, a large expanse of clear blue water about 30 chains in diameter. Continuing northwards along the ridge between the Central Crater and the Blue Lake we descended to the track where it runs through the little saddle at the head of the Central Crater. Once on the grade the warm stream coming from the Ketetahi Springs was soon reached, and from here the hut could be seen.

The hut at Ketetahi is very similar to the Ruapehu one, except that there is no fireplace, the cooking being done in a small shelter-shed about a couple of chains away.

Fourth Day.—We left the hut about 10 a.m., and, keeping to the track to the top of the zigzag, struck across a gully to Te Mari blowhole, which could be seen steaming on the next ridge. The view from Tongariro looking north on a fine morning is a charming one. In the immediate foreground are patches of bush through which a recent lava-flow from Te Mari has eaten its way; beyond this is Roto Aira Lake, surrounded by tussock plains and patches of bush, giving it a park-like appearance, with the forest-clad slopes of Pihanga and Kakaramea in the background. Beyond this again, Lake Taupo's waters shimmer in the morning sun, with the distant peaks to the north just showing through the haze. A fairly easy climb brought us to the blowhole, which we found to be a steam-jet shooting up from a large crack on a rounded spur. The weather clouded up and distant thunder was heard, so we lost no time climbing up the steep spur to the south running up to the Blue Lake. The view from the top of the spur looking southwards is one of the most interesting on the route, taking in the Blue Lake, Red Crater, Ngauruhoe, and Ruapehu. A number of birds were noticed on a rocky point on the edge of the lake below, and on going down to investigate matters we found sixteen nests, and heard afterwards that they were those of the tarapunga, or red-billed sea-gull, which come from Lake Taupo every season to breed there. A slight shower of rain here warned us that it was time to be moving, so we travelled over the ridge down to the horse-track, past the green ponds and the old Oturere Crater basin, and kept to the horse-track right to the Ruapehu hut.

This trip covers a good deal of ground, and it is not always that the weather remains fine for the necessary time. For Ruapehu a fine day is absolutely necessary, as even a slight wind blowing off the snow is decidedly uncomfortable.

The Ketetahi hut is easily reached from Tokaanu, there being a formed dray-road to the foot of the spur below the hut, and a horse-track from there up to it. Several walking enthusiasts have come from Tokaanu to the hut, spent a day or two there, and then gone on across the plains to Waimarino. This will be a magnificent drive when the road is formed right through.

An excursion to the two Nga-puna-a-tama Lakes, about six miles from the Ruapehu hut, in the saddle between Ngauruhoe and Ruapehu, forms an interesting side trip to any one waiting at the hut for a suitable day to climb Ruapehu. The southern lake is the prettier of the two, being almost circular in shape, situated in a basin with sloping sides covered with vegetation, running down from abrupt faces of purple-coloured rocks, and terminating in a narrow sandy beach at the water's edge. The larger one, nearer Ngauruhoe, is more barren-looking, being surrounded by bare rocky ridges. It is just below here in a gully that the Waihohonu rises. The best route to the lakes is to follow up the bed of the Waihohonu almost the whole way, thereby avoiding the continual ups and downs of the little dry washouts running down from Ruapehu, and also the scrubby vegetation.

The Ruapehu hut will always be the most popular base, as it is within easy reach of all the mountains. By cutting out the excursions to the Ketetahi Springs and Te Mari blowhole, the Ngauruhoe trip and Blue Lake could be worked from the Ruapehu hut in one day, though the springs at Ketetahi and views to the north are well worth the extra day.

TRIP TO THE SOUTHERN PEAK OF RUAPEHU (THE LITTLE MATTERHORN) AND CRATER LAKE, FROM THE ROUND BUSH.

The Round Bush, situated about seven miles to the north of the Karioi Railway-station, forms a splendid base to ascend Ruapehu from the southern side. This bush is a circular patch separated from the main body about 10 chains, and can be seen from the railway-line almost anywhere between Karioi and Waiouru.

To reach this camping-spot excursionists taking horses should cross the stream running immediately to the east of the Karioi Railway-station by a small bridge just above the railway-bridge, and then make straight for Ruapehu till the foot of the low hills to the north is reached, so as to avoid several little swampy gullies. A well-worn track starts along the foot, heading off these bad places, and joins the old Native track from Karioi to Tokaanu just under the Tahatehapa Trig. Station and continues almost to the Round Bush, which can be seen standing out very prominently ahead. The route is almost level the whole way, and is easily walked in two and a half hours.

A leading spur runs right from the Round Bush to the southern rocky peak known to many as the "Little Matterhorn," owing to its resemblance to the famous peak of that name. The first mile and a half across the tussock plains, almost level walking, and then an easy rocky spur is met, which rises steadily until within a few hundred feet of the summit, where it rises somewhat abruptly, though not in any way precipitous. A good trip is to climb the south peak, and then cross over round the south side to the highest peak, descend to the lake, and return the north side to the leading spur again. An easy route to the summit of the rocky peak is up a steep rocky ridge immediately to the south of it. To reach the highest point, Ruapehu Peak, 9,175 ft., from here, it is necessary to descend the spur again some distance, and then skirt around the head of the Mangaehuehu Glacier, through a saddle, and up the ridge ahead. In March this glacier presents a magnificent spectacle, being cracked from top to bottom with large crevasses, and about half-way down there is a remarkable icefall which presents a series of tremendous crevasses, ice cliffs, razor-backed ice pinnacles and dark caverns, the greenish tint of the ice giving the place a beautiful effect. The view of the lake and surroundings from Ruapehu Peak is a marvellous sight. On a clear day the ocean can be seen on several sides, together with Mount Egmont standing out away to the west. The trip to the top from the Round Bush takes about six hours. The lake is easily reached by descending to the snowfields below, though late in the summer large crevasses appear near the edge, where the ice cliffs are falling into the lake, which might cause deviations to be made. From the lake the best route is round underneath the north side of the rocky peak, across the Waihanoa Glacier, to a saddle in the spur running down to the Round Bush. Early in the summer this glacier, as well as the Mangaehuehu Glacier and several small ice-filled gullies, is covered with soft snow, which forms splendid foothold, and it is possible to travel almost anywhere without much trouble; but late in the summer, about March, all the soft snow has disappeared, and only the hard ice remains, and it is then that the ice-axe is indispensable, and care has to be taken not to slip.

The journey down can be accomplished easily in a little over two hours from the lake. This route is a very popular one with people resident in the district, as it occupies little time, and forms an ideal excursion for riding-parties.

TRIP TO RUAPEHU PEAK VIA THE MANGAEHUEHU STREAM FROM RANGATAUA.

This route is a direct one from the Main Trunk Railway line, but will not be very popular until a pack-track is formed and a hut erected somewhere near the edge of the bush. The bush and river scenery throughout is magnificent. A good walking-track has been cut up the eastern side of the river from Rangataua to the open country at the foot of the mountain. Horses can be taken about three miles and a half in through a large clearing, and from there the rest of the journey has to be undertaken on foot. It takes about three hours and a half to go from Rangataua Station to a good camping-spot within a mile of the open country round the mountain, and from there five hours will see one to the summit of the highest peak.

From Rangataua to the camping-spot it is a fairly even grade, and from the camp a good leading spur gives easy climbing until within about 500 ft. of the top, where it steepens a good bit though not at all formidably. The route keeps to the east of the Mangaehuehu River until the foot of the glacier is reached, and there it crosses over to the spur to the left of the glacier, giving a splendid view of the terminal face, about 50 ft. of solid greenish ice, with the river rushing away from it in a foaming torrent. The spur to the west of the glacier leads directly to Ruapehu Peak. A party climbed by this route on the 17th March, 1909, just after the Ngauruhoe eruption, and they found the ice and upper parts of the mountain covered with a grey mud, the effects of the recent rain on the ash.

The advantage of this route is that it is very direct from the railway to the main peak. A pack-track could very easily be cut out, and if this were done, and a hut erected within half a mile from the open country, the route would become very popular.

TRIP TO PARETETAITONGA PEAK FROM WAIMARINO SIDE.

On the west of Mount Ruapehu, immediately above the Erua Railway-station, is situated the hill known as Hauhangatahi, its forest-clad slopes, facing the railway-line, presenting a charming spectacle. From the summit a magnificent view can be obtained of Ruapehu. A good track has been cut by the Public Works Department up a leading spur situated about a quarter of a mile south of the Erua Railway-station.



THE SOUTHERN CRATER OF TONGARIRO.

[H. E. Girdlestone, photo.]



RUAPEHU AS SEEN FROM MANGAEHUEHU TRACK, RANGATAUA.

The "Little Matterhorn" Peak is on the right.

Face p. 44.]

[H. E. Girdlestone, photo.]

C.—1.



NGAURUHOE IN ERUPTION. VIEW OF CLOUDS OF FINE ASH AND STEAM DISCHARGED FROM THE CRATER.
[C. T. Salmon, photo.]

The journey up Hauhungatahi occupies about an hour and a half, and the return about an hour. The bush dies away at the top of the steep face, and from thence a long easy sloping spur covered with tussock and patches of mountain scrub leads to the top. Special notice must be taken going up as to where the track leaves the bush, as several climbers have had some difficulty in picking up the spot on the return journey. Between Hauhungatahi and Ruapehu there is a very low saddle, with several long clearings streaked with patches of scrub leading up to the spurs on Ruapehu. There is a thick patch of scrubby bush running round the steep eastern face of Hauhungatahi, and then a large stretch of open tussock country with numerous small pools about 2 ft. to 3 ft. in depth scattered about. From these pools a long avenue of tussock-covered country, almost level, surmounted on either side by long patches of bush, leads towards Ruapehu. Just where the bush on the left runs out there is a clear stream of water, and it was here that a party camped a short time back and made the ascent of Paretaitonga Peak, accomplishing the journey in four hours. A very easy spur, clear of scrub except for a small patch of stunted bush about 40 chains above the camp, runs up from this stream.

Within easy reach of this base, about two or three miles to the southward, there are two magnificent waterfalls on the Makatote Stream, about 10 chains apart, which are well worth a visit. The columnar structure of the cliffs over which the upper one falls is very interesting, and there are numerous specimens of the large yellow buttercup growing just where the spray from the falls reaches them.

The open country in the saddle, intersected with beautiful streams of water and dotted with patches of bush, makes a charming camping-spot. The only drawback at present is that, owing to the large stretch of bush to the north and south, the only available route is over Hauhungatahi, which is a pretty hard climb with tent, rugs, and other equipments.

The Roads Department has started to complete road connection from Waimarino to Tokaanu, which is formed from the latter end and about three-fourths of the distance. The road leaves the main road a short distance below the turn-off to the Waimarino Railway-station, and runs towards Moturoa, an old Native village, and from there will continue on in a north-easterly direction till it reaches the other formation. If a horse-track were cut in from near Moturoa through the bush up the Mangahua Stream, it would have an easy grade all the way, and avoid the big climb over Hauhungatahi. The road from Waimarino to Tokaanu, when formed, besides being one of the prettiest drives in the North Island, will open up hundreds of beautiful camping-spots.

The scenery on the Waimarino Plains is superb. The three mountains are visible from almost any part, and the sunset effects on a winter's evening is a sight worth coming a very long way to see. The tussock plains are intersected everywhere with greenish-tinted mountain-torrents tumbling down from Ruapehu in a series of cascades and waterfalls. Large and small patches of bush are scattered about everywhere, giving a most picturesque effect to the landscape. It is possible to ride for miles on the old Native tracks, though the different fords should be well known, as almost all the small creeks are boggy. This side of the mountains is becoming better known now that the railway is completed, and the beautiful scenery will be an incentive to tourists and others to explore the wonders of the region from the Waimarino Plains.

A splendid camping-spot for ascending Ngauruhoe is to be found in a clump of bush to the north of Pukeonaki Hill, as on the west one of the ancient lava-flows has provided a prominent ridge of rocks which gives a good foothold. Ruapehu can be ascended almost anywhere, as the spurs all rise in steady slopes, there being no difficult rock-climbing on any of them. Parties have ascended *via* the Mangaturuturu Stream, which rises in a large glacier on the west, and several excursions have been made up the Makotuku Stream, but these have been more in the nature of exploring parties, and not much has been heard of them.

At present the accommodation around the mountains is very meagre, most of the climbers preferring to pitch camp and bring their supplies and rugs. A few mountain huts, with caretakers, run on the same lines as the Egmont huts, would do a good deal to popularise excursions, and, once known, the park would be visited every year by hundreds of tourists from all parts of the world.

APPENDIX V.

ERUPTION OF NGAURUHOE, 11TH MARCH, 1909, AS SEEN FROM THE WAIMARINO PLAIN.

[By T. A. JOHNSTON, Assistant Surveyor.]

No written description of the recent eruption and remarkable phenomena could do justice to such a weird and impressive scene. About 5 p.m. on Monday evening attention was suddenly arrested by a sound like thunder in the direction of Ngauruhoe. The noise soon developed into a series of eight sharp explosions like detonators, and a rumbling roar like a train rushing over a viaduct. All the mountains were, however, enshrouded in smoke; but above this suddenly rose a cloud of steam and volcanic dust, rolling and tossing as if eager to get away from the inferno. Caught at last by the rays of the setting sun, it shone with a lurid glare, while the booming of explosions alternated with the muffled rumblings. For twenty minutes, as the dense cloud rolled and mounted upwards, there was a continuous roar, and visions of descending ashes and stones were easily conjured up. At 5.30 p.m., however, the initial explosion seemed to have spent itself, and the imprisoned titanic forces to have found a vent. As the evening closed in, the mountains,

enveloped in a dark pall, were lost to sight, and the stillness of the night was only broken by occasional rumblings, which served to remind one that across the few miles of plains Ngauruhoe was in the throes of an eruption.

As day dawned on Tuesday the mountains stood out in bold relief against the clear sky. Dark smoke was curling from Ngauruhoe, and being driven by the breeze to the south-east. As the morning advanced, the activity became more marked. At 9 o'clock an immense dark column shot straight up from the crater for thousands of feet, gradually breaking into rolling billows, and spreading towards the Nga-puna-a-tama Saddle and the Karioi Plains. Rolling masses and dense shafts were belched forth without cessation from the great vent, taking fantastic shapes in the air. As a rocket rushes up and scatters into myriad stars, so the great columns were thrust up thousands of feet to spread and shower down rocks and ashes. The great cloud of smoke and dust gradually darkened the western sky, and, rising over the mountain, seemed to dwarf it into insignificance. The ashes falling from this on the saddle made a weird and awe-inspiring spectacle, the bottom of the cloud seeming to extend down in streaks of varying thickness to the earth. To add to the impressiveness of the scene, columns of steam and vapour issued from fissures on the north ridge of Ruapehu, extending down to the Ngapuna Saddle. By their intermittent action these resembled geysers, and the steam was sometimes shot hundreds of feet into the air, standing out in marked contrast to the black smoke behind. Signs of activity were also apparent on the craters of Tongariro, but did not show the same life as the others. Though little rumbling was heard, Ngauruhoe belched forth its lurid clouds all Tuesday without cessation, but the general appearance at night-fall seemed to indicate that for probably many years to come there would not be such a scene of majestic grandeur.

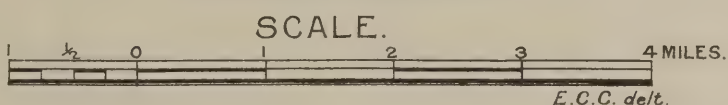
On Wednesday and Thursday the wind changed slightly, and the snowfields of Ruapehu, which had glistened in the sun during Tuesday's eruption, were soon covered with ashes.

At the time of writing—Thursday night—the mountain is fairly quiet, though the geysers have shown fair activity throughout the day. On the south side Ngauruhoe presents a greyish appearance, though no lava-flow was noticed. The crater has been slightly altered, part of the top having been blown away. Apart from the geysers on the north slopes, where there was previously no sign of activity, Ruapehu seems to have been quiescent. Without exploration, however, it is impossible to say what changes have taken place.

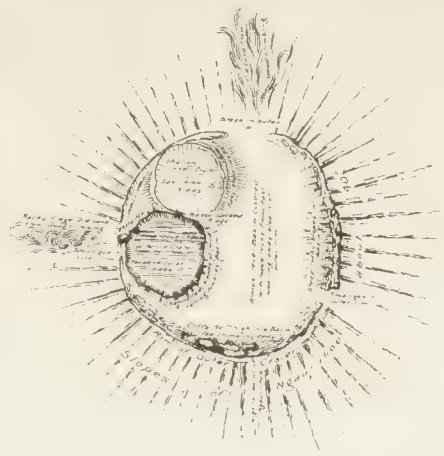


PLAN OF
TONGARIRO NATIONAL PARK
 AND ITS SURROUNDINGS

Stream

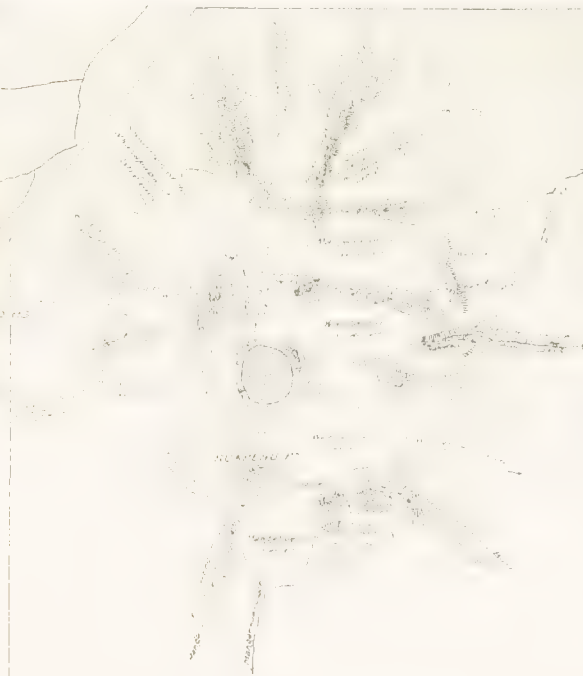


Stream



SKETCH OF SUMMIT OF
NGAURUHOE

Okupata K 2789

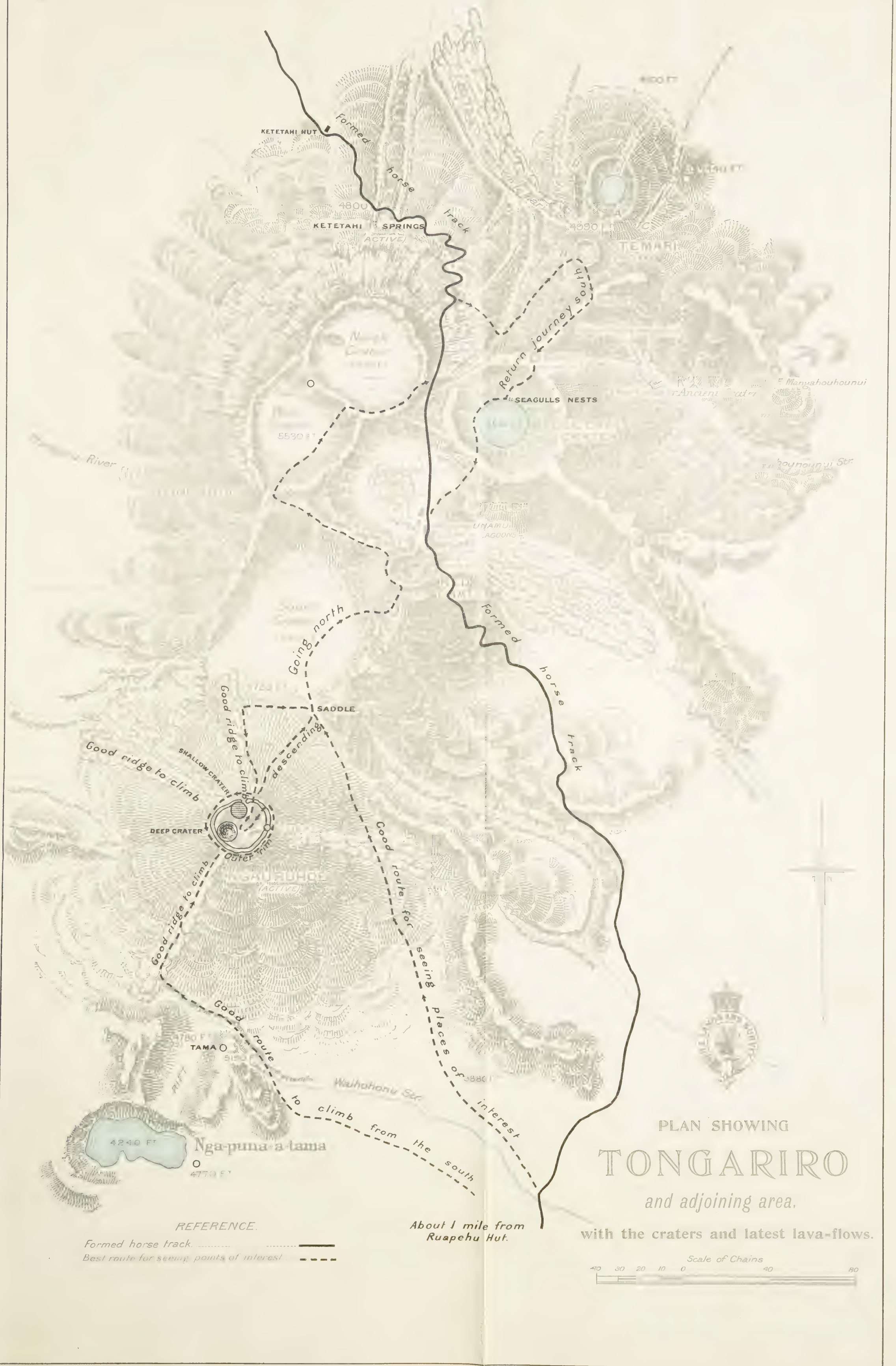


SKETCH OF SUMMIT OF
MOUNT RUAPEHU



PLAN OF
TONGARIRO NATIONAL PARK
AND ITS SURROUNDINGS





REFERENCE.

Formed horse track. ————
Best route for seeing points of interest. - - - -

About 1 mile from
Ruapehu Hut.

PLAN SHOWING
TONGARIRO
and adjoining area,
with the craters and latest lava-flows.



Table 1.—Return showing (approximately) the POSITION of LANDS of the DOMINION at 31st March, 1909.

District.	Total Area sold and held on Freehold.	Total Area reserved, granted under Acts, &c., from Foundation of Dominion to 31st March, 1909.	Total Area of Crown Lands leased under all Tenures.	Total Area open for Selection.	Total Area of Native Land.	Estimated Area of Barren and Worthless Country.	Estimated Area occupied by Roads, Rivers, Lakes, &c.	Total Area remaining for future disposal, exclusive of Land shown in Preceding Columns.	Total Area in Land District.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Auckland ..	2,133,092	3,566,283	1,656,378	326,803	4,006,771	..	653,173	1,515,500	13,858,000
Hawke's Bay ..	2,594,120	433,596	872,084	4,403	1,493,979	..	504,035	160,783	6,063,000
Taranaki ..	448,012	700,343	520,021	971	351,359	..	52,792	343,801	2,417,299
Wellington ..	4,464,568	869,149	870,513	2,490	125,031	36,500	142,702	300,000	6,810,953
Nelson ..	542,746	282,974	752,457	37,299	54,589	1,544,000	60,000	1,411,935	4,686,000
Marlborough ..	833,475	202,450	1,343,525	7	..	140,000	100,000	148,543	2,768,000
Westland ..	120,252	205,862	879,940	731,867	..	1,375,500	134,016	427,450	3,894,887
Canterbury ..	3,732,526	1,360,133	3,765,397	394	..	301,586	444,009	..	9,604,045
Otago ..	1,978,126	715,395	5,518,312	7,794	..	200,000	263,200	199,973	8,882,800
Southland ..	1,560,039	3,494,887	1,729,313	33,195	..	233,698	139,760	393,000	7,583,892
Totals ..	18,406,956	11,831,072	17,907,940	1,145,223	6,031,729	3,831,284	2,513,687	4,900,985	66,568,876

Table 2.—LANDS OPENED FOR SALE and SELECTION during the Year ended 31st March, 1909.

District.	Optional System.	Cash by Auction.	Lease by Auction and Application.	Village Allotments.	Pastoral Runs.	Small Grazing-runs.	Renewable Lease.	Totals.
<i>Ordinary Crown Lands—</i>								
Auckland ..	Acres. 57,124	Acres. 119	Acres. 969	Acres. 167	Acres. 124,874	Acres. 10,350	Acres. 7,352	Acres. 200,955
Hawke's Bay ..	21,375	4	18	53	11,296	21,050	1,072	54,868
Taranaki ..	11,363	67	46	..	..	..	..	11,476
Wellington ..	15,223	150	72	1,088	..	3,912	59	20,504
Nelson ..	1,065	..	..	..	..	..	40,411	41,416
Marlborough ..	..	..	526	244	..	..	588	1,358
Westland ..	827	..	20	..	617,300	..	32,868	651,015
Canterbury ..	7,245	147	748	..	249,801	..	..	257,941
Otago ..	12,866	93	..	..	454,470	..	1,652	469,081
Southland ..	32,561	92	4,820	..	81,498	..	3,731	122,702
Totals ..	159,589	672	7,219	1,552	1,539,239	35,312	87,733	1,831,316
<i>Land for Settlements—</i>								
Auckland ..	..	..	..	..	..	..	33,788	33,788
Hawke's Bay ..	..	..	..	..	..	..	2,294	2,294
Taranaki ..	..	..	..	..	..	..	461	461
Wellington ..	..	..	..	..	..	..	5,274	5,274
Nelson ..	..	..	..	..	..	..	20,115	20,115
Canterbury ..	..	..	..	..	..	..	28,296	28,296
Otago ..	..	..	21	..	..	..	21,169	21,190
Southland ..	..	..	..	..	..	..	1,716	1,716
Totals ..	..	..	21	..	..	..	113,113	113,134
<i>National Endowment—</i>								
Auckland ..	..	..	..	..	16,920	..	25,253	42,173
Hawke's Bay ..	..	..	..	..	..	5,820	..	5,820
Taranaki ..	..	..	..	..	..	..	14,747	14,747
Wellington ..	..	..	..	..	..	1,710	878	2,588
Nelson ..	..	..	..	..	169,500	..	241,415	241,415
Westland ..	..	..	..	..	208,346	1,227	23,820	193,320
Otago ..	..	..	..	..	..	..	..	209,573
Totals ..	..	..	..	..	394,766	8,757	306,113	709,636
Grand totals ..	159,589	672	7,240	1,552	1,934,005	44,069	506,959	2,654,085

Table 3 (Part I).—SUMMARY of LANDS taken up during the Year ended 31st March, 1909 (exclusive of Pastoral Runs and Miscellaneous Leases).

For Details see	Tenures.	Auckland.			Hawke's Bay.			Taranaki.			Wellington.			Nelson.			Marlborough.			Westland.			Canterbury.			Otago.			Southland.			Total Area taken up during Year.			
		A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.							
ORDINARY CROWN LANDS.																																			
Table	5—Cash lands	2,322	2	9	147	1	7	92	1	22	64	0	22	4,979	1	7	683	0	0	..	..	..	782	1	1	32,206	3	23	851	2	11	42,129	1	22
"	8—Occupation with right of purchase	44,489	2	27	15,141	0	20	14,996	0	11	14,840	2	11	24,267	1	29*	..	..	..	..	..	..	564	1	32	3,252	2	9	5,564	2	11	123,116	1	33
"	9—Lease in perpetuity	..	..	..	..	..	..	..	..	..	244	2	0	105,899	3	15†	..	..	..	..	..	..	..	..	..	..	..	..	40	0	0	106,184	1	15
"	10—Renewable lease	..	..	..	..	..	..	..	..	..	940	2	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	940	2	26	
"	12—Mining districts land occupation leases	381	0	0	..	..	..	..	..	..	..	..	..	657	1	0	..	..	..	..	34	2	36	..	..	417	0	6	..	..	1,490	0	2	
"	13—Village settlement, cash	7	1	10	..	..	..	..	..	..	8	0	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16	2	18	
"	13—Village settlement, renewable lease	..	..	..	..	..	..	..	..	..	689	1	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	689	1	29	
"	30—Improved-farm special settlement..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	17—Small grazing-runs	..	..	..	..	..	..	..	..	..	3,555	0	0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3,555	0	0	
Totals		47,200	2	6	15,289	2	27	15,088	1	33	20,342	1	16	135,803	3	11	683	0	0	..	34	2	36	1,346	2	33	35,876	1	38	6,456	0	22	278,121	3	22
LAND FOR SETTLEMENTS ACTS.																																			
"	5—Cash lands	9	3	12	18	1	0	..	..	..	3	2	18	..	..	..	6	0	30	..	..	..	4	0	30	..	..	..	5	0	0	47	0	10
"	10—Renewable lease	15,857	1	5	1,954	0	23	10	3	10	4,543	0	27	12,299	0	0	95	1	7	..	..	..	28,248	1	10	29,900	1	38	385	2	20	93,294	0	20
"	13—Renewable lease (village)	..	..	..	0	1	0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	1	16	..	..	9	2	16		
Totals		15,867	0	17	1,972	2	23	10	3	10	4,546	3	5	12,299	0	0	101	1	37	..	..	..	28,252	2	0	29,909	3	14	390	2	20	93,350	3	6
NATIONAL ENDOWMENT LANDS.																																			
Table	5—Cash lands	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	10—Renewable lease (ordinary)	23,214	0	23	6,857	1	32	15,093	0	0	561	3	8	55,706	3	19	4,264	3	20	7,277	2	2	..	6,000	1	30	2,979	1	25	1,815	0	5	123,770	2	4
"	13—Renewable lease (village settlements)	67	0	7	..	..	..	..	..	..	107	1	32	..	..	..	243	3	12	0	3	0	..	..	..	24	1	12	24	2	37	468	0	20
"	17—Small grazing-runs	..	..	..	23,882	0	0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,552	0	0	..	..	25,434	0	0	
Totals		23,281	0	30	30,739	1	32	15,093	0	0	669	1	0	55,706	3	19	4,508	2	32	7,278	1	2	..	6,000	1	30	4,555	2	37	1,839	3	2	149,672	2	24
Grand totals		86,348	3	13	48,001	3	23	30,192	1	3	25,558	1	21	203,809	2	30	5,293	0	29	7,312	3	38	..	35,599	2	23	70,342	0	9	8,686	2	4	521,145	1	12

* See footnote to Table 8. † See footnote to Table 9.

Table 3 (Part II).—SUMMARY OF SETTLEMENT LANDS: TRANSACTIONS up to the Year ended 31st March, 1909.

For Details See	Tenures.	Exchanges from other Tenures during the Year.			Area held at 31st March, 1908.			Total Exchanges during the Year.			Total Forfeitures during the Year.			Total Surrenders during the Year.			Total Expires during the Year.			Total Area held on 31st March, 1909: Past and Current Transactions.			Total Area made Freehold to date.		
		A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.
ORDINARY CROWN LANDS.																									
Table	5—Cash lands	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16,961	3	19	13,116,999	3	35
"	6—Deferred payment	..	..	..	24,565	2	15	..	..	..	996	2	35	..	..	..	..	..	..	86,908	3	16	977,673	3	25
"	7—Perpetual lease	..	..	..	92,627	2	10	..	..	..	22,896	1	33	785	2	17	..	..	..	1,656,308	3	24	780,989	1	5
"	8—Occupation with right of purchase	..	..	..	1,579,102	3	23	..	..	..	4,897	0	37	7,617	0	11	..	..	..	1,528,657	1	5	153,718	1	16
"	9—Lease in perpetuity	717	0	0	1,450,381	0	37	100	0	0	..	..	..	..	..	..	..	..	..	940	2	26	20,060	3	16
"	10—Renewable lease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	521	1	29	..	..	..
"	11—Agricultural lease	..	..	..	24,906	0	11	865	1	23	399	1	3	274	0	34	..	..	..	24,633	0	13	7,133	2	32
"	12—Mining districts land occupation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	164	3	3	12,228	3	31
"	13—Village settlement, cash	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	13—Village settlement, deferred payment	..	..	..	164	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	13—Village settlement, perpetual lease	..	..	..	1,507	0	22	10	0	0	..	0	1	0	..	..	..	..	..	1,459	2	16	2,614	1	11
"	13—Village settlement, occupation with right of purchase	..	..	..	64	0	32	..	..	..	..	..	..	..	..	..	..	..	..	62	2	14	8	1	18
"	13—Village settlement, lease in perpetuity	..	..	..	23,250	1	31	..	..	..	57	3	28	19	2	34	..	..	..	22,919	0	14	18	1	5
"	13—Village settlement, renewable lease	..	..	..	2	0	24	..	..	..	..	..	..	..	..	..	..	..	..	691	2	13	..	..	..
"	13—Village - homestead special settlement	9	0	16	13,652	2	16	25	2	22	..	..	..	..	..	..	..	..	..	13,601	1	10	..	..	..
"	15—Special settlement associations	..	..	..	114,023	0	11	..	..	..	..	2	0	..	..	..	..	..	..	115,731	2	22	91,358	2	14
"	31—Improved-farm special settlement	..	..	..	67,916	0	5	..	..	..	92	2	0	..	..	..	..	..	..	73,126	2	6	2,856	1	17
"	16—Homestead	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	80,452	3	10
"	17—Small grazing-runs	..	..	..	462,399	0	8	571	0	0	..	..	..	1,240	0	18	75,638	0	35	459,696	1	20	..	..	..
Totals		726	0	16	3,855,087	0	37	1,572	0	5	29,280	1	16	9,936	2	34	75,666	0	28	4,002,385	2	10	15,386,959	2	18
CHEVIOT ESTATE.																									
Table	5—Cash lands	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6,842	1	25
"	9—Lease in perpetuity	..	..	..	24,392	1	2	..	..	..	..	..	..	..	..	..	..	..	..	24,387	2	2	..	..	..
"	10—Renewable lease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	13—Village-homestead special settlements (lease in perpetuity)	..	..	..	2,480	1	0	..	..	..	..	..	..	..	..	..	..	..	..	2,480	1	0	..	..	..
"	13—Village-homestead special settlements (renewable lease)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	17—Grazing-farms	..	..	..	45,846	1	26	..	..	..	..	..	..	..	..	..	..	..	..	45,782	0	7	..	..	..
Totals		..	..	..	72,718	3	28	..	..	..	..	..	..	..	..	..	..	..	..	72,649	3	9	6,842	1	25

Table 3 (Part II).—SUMMARY OF SETTLEMENT LANDS: TRANSACTIONS up to the Year ended 31st March, 1909—continued.

For Details see.	Tenures.	Exchanges from other Tenures during the Year.	Area held at 31st March, 1908.	Total Exchanges during the Year.	Total Forfeitures during the Year.	Total Surrenders during the Year.	Total Expiries during the Year.	Total Area held on 31st March, 1909, Past and Current Transactions.	Total Area made Freehold to date.
		A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.
	LAND FOR SETTLEMENTS ACTS.								
Table 5—Cash lands
" 9—Lease in perpetuity	678,971 3 30	1,386 0 26	1,062 2 6	18 1 10	..	676,370 2 18	144 0 4
" 10—Renewable lease	..	1,386 0 26	..	..	292 2 38	5,522 0 30	..	155,972 3 7	..
" 13—Lease in perpetuity (village)	438 1 23	..	..	..	..	438 1 28	..
" 13—Renewable lease (village)	9 2 16	..
" 15—Special-settlement associations	2,114 1 9	..	..	..	..	2,114 1 9	..
" 17—Small grazing-runs	217,654 0 33	..	3,694 0 0	2,956 0 0	..	211,004 0 33	..
Totals	..	1,386 0 26	899,178 3 20	1,386 0 26	5,049 1 4	8,496 2 0	..	1,045,909 3 31	144 0 4
	NATIONAL ENDOWMENT LANDS.								
Table 5—Cash lands
" 10—Renewable lease (ordinary)	..	1,954 1 29	3,427 1 0	..	186 2 0	705 1 32	..	128,260 1 1	..
" 13—Renewable lease (village settlement)	106 1 13	..	..	..	..	574 1 33	..
" 17—Small grazing-runs	1,105,925 0 20	..	434 1 31	..	..	1,129,732 2 13	..
Totals	..	1,954 1 29	1,109,458 2 33	..	620 3 31	705 1 32	..	1,258,567 1 7	..
Grand totals	..	4,066 2 31	5,986,443 2 33	2,958 0 31	34,950 2 11	19,138 2 26	75,666 0 28	6,379,512 2 17	15,393,946 0 7

Table 4.—ANALYSIS OF HOLDINGS taken up during the Year ended 31st March, 1909.

Tenures.	No. of Selectors.	Average Holdings of Selectors.					No. of Selectors under 1 Acre.	No. of Selectors 1 to 50 Acres.	No. of Selectors 51 to 250 Acres.	No. of Selectors 251 to 500 Acres.	No. of Selectors 501 to 1,000 Acres.	No. of Selectors 1,001 Acres and upwards.
<i>Ordinary Crown Lands—</i>												
Cash lands	350	194	111	31	8	5	1					
Occupation with right of purchase	382	..	47	172	91	55	17					
Lease in perpetuity	193	..	6	45	56	61	25					
Renewable lease	81	75	5	..	..	..	..	
Mining districts land occupation leases	36	..	25	11	..	..	..		
Village settlement, cash	11	5	6	..	..	..	..	
Village settlement, renewable lease	109	6	103	..	..	..	..	
Small grazing-runs	2	..	..	..	..	..	..
Pastoral runs	43	..	12	5	5	1	1					
Pastoral licenses in mining districts under special regulations	52	..	10	27	14	1	18					
Thermal springs, Rotorua. ....	..	..	..	..	..	..	..
Miscellaneous leases and licenses	443	71	218	103	25	12	14					
Totals	1,702	351	543	394	199	138	77					
<i>Cheviot Estate—</i>												
Cash lands .. .. .	..	..	..	..	..	..	..
Renewable lease .. .. .	..	..	..	..	..	..	..
Village-homestead special settlement (renewable lease) .. .. .	..	..	..	..	..	..	..
Grazing-farms .. .. .	..	..	..	..	..	..	..
Miscellaneous	3	..	3	..	..	..	..	
Totals	3	..	3	..	..	..	..	
<i>Land for Settlements Acts—</i>												
Cash lands	21	4	17	..	..	..	..	
Renewable lease	228	21	60	51	29	47	20					
Renewable lease (village)	2	1	1	..	..	..	..	
Miscellaneous	37	2	21	11	2	1	..					
Totals	288	28	99	62	31	48	20					
<i>National Endowment Lands—</i>												
Cash lands .. .. .	..	..	..	..	..	..	..
Renewable lease (ordinary)	383	71	28	104	91	68	21					
Renewable lease (village settlements)	57	4	53	..	..	..	..	
Small grazing-runs	8	..	..	..	1	..	7					
Pastoral runs	30	..	10	13	2	..	5					
Pastoral licenses in mining districts under special regulations	31	..	7	19	4	1	..					
Miscellaneous leases and licenses	101	..	44	43	9	3	2					
Totals	610	75	142	179	107	72	35					
Grand totals	2,603	454	787	635	337	258	132					

Table 5.—RETURN OF CROWN LANDS sold for CASH during the Year ended 31st March, 1909.

District.	Area disposed of.						Average Price per Acre.						Consideration received.			
	Town.			Suburban.			Rural.			Total.			Cash.	Scrip.	Total.	
	Number of Purchasers.	Area.	Number of Purchasers.	Area.	Number of Purchasers.	Area.	Number of Purchasers.	Area.	Number of Purchasers.	Area.	Town.	Suburban.				Rural.
		A. R. P.		A. R. P.		A. R. P.		A. R. P.		A. R. P.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<i>Ordinary Crown Lands—</i>																
Auckland ..	65	24 1 26	..	..	42	2,298 0 23	2,322 2 9	258 12 0	..	..	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Hawke's Bay ..	2	2 0 0	1	3 2 0	11	141 3 7	147 1 7	37 0 0	12 0 0	..	..	..	..	..	..	..
Taranaki ..	37	16 3 23	10	63 2 15	5	11 3 24	92 1 22	54 15 6	6 4 0	..	..	..	..	..	..	..
Wellington ..	74	21 0 21	4	21 1 1	2	21 3 0	64 0 22	290 0 0	6 7 0	..	..	..	..	..	..	..
Nelson ..	..	..	..	..	17	4,979 1 7	4,979 1 7	..	..	..	..	..	..	..	..	..
Marlborough ..	..	..	..	..	1	683 0 0	683 0 0	..	..	..	..	..	..	..	..	..
Westland ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Canterbury ..	..	..	..	..	20	782 1 1	782 1 1	..	..	..	..	..	..	..	..	..
Otago ..	5	1 3 28	7	15 1 33	20	32,189 2 2½	32,206 3 23	20 0 0	2 1 3	..	..	..	..	..	..	..
Southland ..	1	0 3 0	16	88 1 5	10	762 2 6	851 2 11	30 0 0	5 0 3	..	..	..	..	..	..	..
Totals ..	184	67 0 18	38	192 0 14	128	41,870 0 30	42,129 1 22	..	..	..	..	..	..	..	..	..
<i>Land for Settlements—</i>																
Auckland ..	1	1 0 0	..	..	5	8 3 12	9 3 12	42 0 0	..	..	..	..	..	..	..	..
Hawke's Bay ..	..	..	..	..	7	18 1 0	18 1 0	..	..	..	..	..	..	..	..	..
Wellington ..	..	..	1	0 3 10	2	2 3 8	3 2 18	50 0 0	0 0 0	..	..	..	..	..	..	..
Marlborough ..	1	1 0 30	1	5 0 0	..	..	6 0 30	58 19 9	14 0 0	..	..	..	..	..	..	..
Canterbury ..	1	0 2 0	..	..	1	3 2 30	4 0 30	280 0 0	..	..	..	..	..	..	..	..
Southland ..	..	..	..	..	1	5 0 0	5 0 0	..	..	..	..	..	..	..	..	..
Totals ..	3	2 2 30	2	5 3 10	16	38 2 10	47 0 10	..	..	..	..	..	..	..	..	..
Grand totals ..	187	69 3 8	40	197 3 24	144	41,908 3 0	42,176 1 32	..	..	..	..	..	..	..	..	..

* Where two average prices are given, the first is for lands selected when an option was given to acquire them under other tenures, and the second when no such option was given.
† Payment received for excess area on survey of areas selected as unsurveyed land. ‡ Of this amount £191 10s. was received during previous year, but was not returned, as purchase was not completed till after 31st March, 1909. § Includes an area of 31,880 acres of Crown land which was transferred to the Otekaieke Estate, and dealt with under the Land for Settlements Act.

Table 6.—RETURN of DEFERRED-PAYMENT LANDS at Year ended 31st March, 1909.

District.	Forfeitures during the Year.				Exchanges during the Year.				Capitalised during the Year.				Net Area held on 31st March, 1909, including Capitalised Holdings.				Amount received during the Year ended 31st March, 1909.
	Number of Selectors.	Area.	Yearly Instalments payable.	Number of Selectors.	Area.	Yearly Instalments payable.	Number of Selectors.	Area.	Yearly Instalments payable.	Number of Selectors.	Area.	Yearly Instalments and Interest payable.	Number of Selectors.	Area.	Yearly Instalments and Interest payable.		
Auckland	..	A. R. P.	£ s. d.	..	A. R. P.	£ s. d.	..	A. R. P.	£ s. d.	..	A. R. P.	£ s. d.	14	1,097 2 13	22 14 9	£ s. d.	
Hawke's Bay	1	1,415 0 0	42 10 0	79 3 5	
Taranaki	21 5 0	
Wellington	8 16 2	
Nelson	1	213 0 22	1 16 4	..	
Marlborough	14	1,651 2 6	8 8 0	73 14 10	
Westland	
Canterbury	4	8,914 0 10	660 0 8	756 10 9	
Otago	12	3,670 2 8	66 4 0	155 3 5	
Southland	687 19 9	
Totals..	3	87 1 10	7 18 6	46	16,961 3 19	801 13 9	..	1,782 13 4		

District.	Freehold acquired during the Year.			Made Freehold from Commencement of System to 31st March, 1909.			Selectors in Arrear on 31st March, 1909.		
Number of Selectors.	Area.	Total Amount realised, exclusive of Interest.	Number of Selectors.	Area.	Total Amount realised, exclusive of Interest.	Number of Selectors.	Area.	Amount.	
Auckland	3	A. R. P.	£ s. d.	328	A. R. P.	£ s. d.	..	A. R. P.	£ s. d.
Hawke's Bay	..	87 1 10	22,923 4 9	807	83,906 1 20	89,081 7 9
Taranaki	1	99 0 0	157,197 3 13	1,304	136,987 1 31	238,795 11 3
Wellington	151,161 10 10	654	149,438 3 19	120,783 9 10	1	213 0 22	4 19 10
Nelson	10	1,267 2 21	4,638 1 30	1,583	4,571 3 12	3,257 9 3
Marlborough	4,282 11 3	50	18,881 0 34	43,039 9 10
Westland	18,881 0 34	100	188,954 1 27	226,840 0 0
Canterbury	..	203 1 31	192,864 2 3	118	977,673 3 25	1,154,683 18 11
Otago	1	5,946 1 14	..	1,124
Southland	4	7,603 2 36	..	1,314
Totals..	19	7,382	1	213 0 22	4 19 10

Table 7.—RETURN OF PERPETUAL-LEASE LANDS at Year ended 31st March, 1909.

District.	Exchanges to other Tenures during the Year.			Forfeitures during the Year.			Surrenders during the Year.			Freeholds acquired during the Year.		
	Number of Selectors.	Area.	Annual Rental.	Number of Selectors.	Area.	Annual Rental.	Number of Selectors.	Area.	Annual Rental.	Number of Selectors.	Area.	Amount realised.
Auckland	..	A. R. P.	£ s. d.	..	A. R. P.	£ s. d.	..	A. R. P.	£ s. d.	13	1,697 1 21	779 6 0
Hawke's Bay	500 0 0	292 10 0
Taranaki	365 0 0	266 7 6
Wellington	750 1 18	324 16 10
Nelson	54 3 0	54 15 0
Marlborough	347 3 3	241 2 6
Westland	888 0 36	546 15 8
Canterbury	1	996 2 35	27 0 4	..	..	..	..	..	..
Otago
Southland
Totals	1	996 2 35	27 0 4	..	..	..	25	4,603 1 38	2,505 13 6

District.	Made Freehold from Commencement of System to 31st March, 1909.			Net Area held on 31st March, 1909.			Amount received during the Year ended 31st March, 1909 (exclusive of Amount from Perpetual Leases made Freehold).			Selectors in Arrear, 31st March, 1909.		
	Number of Selectors.	Area.	Total Amount realised, exclusive of Interest.	Number of Selectors.	Area.	Annual Rental.	£ s. d.	£ s. d.	£ s. d.	Number of Selectors.	Area.	Amount.
Auckland..	528	A. R. P.	£ s. d.	194	A. R. P.	£ s. d.	1,014 15 1	810 0 2	46 11 7	11	1,487 3 11	..
Hawke's Bay	297	158,745 2 7	74,597 19 9	9	34,693 3 33	112 19 0	100 12 5	231 9 6	..	..	..	..
Taranaki ..	401	133,659 1 24	102,300 19 7	9	2,852 0 23	112 19 0	100 12 5	231 9 6	..	..	..	..
Wellington	791	101,280 1 39	93,795 10 2	12	3,781 0 16	199 2 2	153 16 4	170 8 8	..	..	..	..
Nelson ..	27	309,320 2 5	275,882 15 8	12	3,862 2 27	153 16 4	170 8 8	170 8 8	..	..	..	..
Marlborough	8	9,181 0 30	3,122 5 6	11	1,922 2 13	37 1 6	29 12 2	23 6 8	..	..	..	..
Westland	6	1,676 1 2	772 1 10	4	420 1 5	17 12 6	17 12 6	23 6 8	..	..	..	..
Canterbury	92	482 3 20	482 17 2	7	580 1 8	28 0 4	28 0 4	6 16 0	..	..	..	..
Otago ..	147	15,649 3 11	23,847 1 9	19	1,388 2 35	110 5 2	110 5 2	94 0 5	..	..	..	..
Southland	96	28,313 3 14	22,855 3 8	172	28,670 2 5	1,046 15 0	1,046 15 0	1,004 7 10	..	..	..	..
Totals ..	2,393	22,679 1 13	16,979 15 5	54	8,736 2 11	324 5 10	324 5 10	338 18 10	..	..	..	..
	..	780,939 1 5	614,136 10 6	494	86,908 3 16	3,044 12 11	3,044 12 11	2,809 12 8	..	..	..	..
	..	..	..	..	..	..	..	..	..	23	3,645 2 33	121 7 0

Table 8.—RETURN of OCCUPATION-WITH-RIGHT-OF-PURCHASE LANDS at Year ended 31st March, 1909.

District.	Taken up during the Year.				Forfeitures during the Year.				Surrenders during the Year.				Freeholds acquired during the Year.			
	Numbers of Selectors.	Area.	Annual Rental payable.	£ s. d.	Numbers of Selectors.	Area.	Annual Rental.	£ s. d.	Numbers of Selectors.	Area.	Annual Rental.	£ s. d.	Numbers of Purchasers.	Area.	Amount received.	£ s. d.
Auckland	170	44,489	2 27	1,766 15 0	46	15,219	0 17	442 1 4	1	100	0 30	2 10 0	56	6,511	3,821 10 11	
Hawke's Bay	54	15,141	0 20	4,224 18 0	1	17	0 22	1 0 0	..	..	..	..	6	1,401	1,665 4 6	
Taranaki	30	14,896	0 11	701 11 0	9	6,026	1 20	216 9 0	..	..	..	..	8	2,765	2,960 11 3	
Wellington	25	14,840	2 11	1,671 14 10	..	716	0 0	17 12 0	..	..	..	..	44	11,018	14,297 19 8	
Nelson	*49	24,267	1 29	422 10 9	2	..	..	..	..	3	0 11	0 1 6	3	245	97 11 6	
Marlborough	..	..	..	..	..	..	..	..	..	..	..	..	4	912	1,124 3 11	
Westland	..	564	1 32	32 10 0	..	..	..	..	..	564	1 32	32 10 0	..	518	323 15 0	
Canterbury	21	3,252	2 9	110 8 0	1	115	2 20	2 3 6	1	117	3 24	2 4 4	1	169	127 10 0	
Otago	32	5,564	2 11	350 2 8	6	742	0 34	13 14 2	..	..	..	..	3	171	169 19 0	
Southland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	382	123,116	1 30	9,280 10 3	65	22,836	1 33	693 0 0	3	785	2 17	37 5 10	126	23,714	24,588 5 9	

District.	Freeholds acquired from Commencement of System to 31st March, 1909.				Net Area held on 31st March, 1909.				Amount received during the Year ended 31st March, 1909 (exclusive of Amount paid for acquiring Freehold).				Selectors in Arrear, 31st March, 1909.			
	Numbers of Purchasers.	Area.	Total Amount realised.	£ s. d.	Numbers of Selectors.	Area.	Annual Rental.	£ s. d.	On the Year's Transactions.	On Past Transactions.	Total.	£ s. d.	Numbers of Selectors.	Area.	Amount.	£ s. d.
Auckland	287	49,650	1 2	26,818 12 11	2,434	734,422	0 13	883 7 6	7 6	16,222	8 6	17,105 16 0	67	21,012	395 16 0	
Hawke's Bay	43	19,516	1 0	17,045 15 9	305	150,474	1 21	2,112 9 0	9 0	7,391	18 10	9,504 7 10	7	4,424	109 17 3	
Taranaki	42	10,424	2 32	13,989 2 3	462	252,875	0 4	351 7 5	7 5	5,885	11 10	6,236 19 3	11	3,951	70 7 8	
Wellington	205	63,378	2 31	75,293 11 5	654	286,254	3 0	980 1 6	1 6	11,121	1 2	12,101 2 8	20	8,418	292 3 3	
Nelson	20	3,765	0 5	1,262 8 2	249	68,384	3 35	190 15 9	9	437	5 1	628 0 10	7	1,275	24 15 4	
Marlborough	10	2,230	1 28	1,596 9 10	39	12,595	2 20	..	..	430	4 0	430 4 0	3	1,509	13 6 9	
Westland	..	..	..	..	106	18,590	0 24	..	..	473	0 4	473 0 4	11	1,223	34 0 8	
Canterbury	9	1,136	2 29	1,433 4 5	24	4,090	2 23	16 10 0	0	221	11 6	238 1 6	..	..	..
Otago	5	448	0 23	326 10 0	277	50,732	0 14	53 14 0	0	1,195	17 1	1,249 11 1	4	656	14 16 0	
Southland	25	3,168	0 26	2,561 17 3	347	77,899	0 30	175 1 4	4	1,490	16 9	1,665 18 1	2	457	5 16 1	
Totals	646	153,718	1 16	140,327 12 0	4,897	1,656,308	3 24	4,763 6 6	6 6	44,869	15 1	49,633 1 7	132	41,928	960 19 0	

* This includes 45 selectors, of 23,386 acres 1 rood 29 perches, who selected unsurveyed lands in previous years, but which had not been returned owing to want of surveys.

Table 9.—RETURN of LEASE-IN-PERPETUITY LANDS at Year ended 31st March, 1909.

District.	Exchanges to Renewable Lease during the Year.			Forfeitures during the Year.			Surrenders during the Year.			Freeholds acquired during the Year.		
	No. of Selectors.	Area.	Annual Rental payable.	No. of Selectors.	Area.	Annual Rental payable.	No. of Selectors.	Area.	Annual Rental payable.	No. of Purchasers.	Area.	Amount realised.
<i>Ordinary Crown Lands—</i>												
Auckland ..	1	A. R. P. 100 0 0	£ s. d. 10 0 0	7	A. R. P. 2,375 3 32	£ s. d. 53 8 10	1	A. R. P. 1,591 0 0	£ s. d. 27 9 10	7	A. R. P. 2,562 2 20	£ s. d. 3,547 11 0
Hawke's Bay ..	..	..	..	1	..	7 0 0	..	..	..	1	..	961 12 6
Taranaki ..	..	..	..	..	..	..	..	..	..	..	..	..
Wellington ..	..	..	..	1	1,138 0 0	68 6 0	..	..	..	..	..	..
Nelson ..	..	..	..	3	623 1 36	11 19 4	8	3,597 2 16	46 4 0	14	1,980 0 0	1,485 0 0
Marlborough ..	..	..	..	..	..	..	3	1,081 3 19	13 11 8	2	7,123 3 8	3,319 9 9
Westland ..	..	..	..	7	449 0 26	11 3 2	2	415 3 10	7 8 0	6	1,203 0 0	712 17 0
Canterbury ..	..	..	..	..	..	..	..	..	..	1	1,211 3 8	690 6 2
Otago ..	..	..	..	..	..	..	2	930 3 6	26 11 10	3	39 0 0	123 10 0
Southland ..	..	..	..	1	30 2 23	4 18 0	..	..	..	2	2,145 2 8	740 14 6
Totals ..	1	100 0 0	10 0 0	20	4,897 0 37	156 15 4	16	7,617 0 11	121 5 4	37	18,539 1 16	13,049 5 3
<i>Land for Settlements—</i>												
Auckland ..	..	..	..	8	574 3 5	113 3 4	..	..	..	..	..	..
Hawke's Bay ..	..	..	..	..	..	..	1	6 0 0	12 0 0	..	..	..
Taranaki ..	..	..	..	..	..	..	1	5 0 0	17 0 0	..	..	..
Wellington ..	2	238 1 26	145 9 0	1	44 2 28	21 0 0	..	..	..	..	..	..
Nelson ..	..	..	..	..	..	..	..	..	..	..	..	..
Marlborough ..	..	..	..	14	58 1 36	41 13 2	..	7 1 10	0 13 8	..	..	..
Westland ..	..	..	..	..	..	..	..	..	..	..	..	..
Canterbury ..	2	1,147 3 0	588 15 0	3	93 3 22	138 0 0	..	..	..	..	..	..
Otago ..	..	..	..	1	8 1 35	1 18 0	..	..	..	..	..	..
Southland ..	..	..	..	1	282 1 0	28 18 8	..	..	..	..	..	..
Totals ..	4	1,386 0 26	734 4 0	28	1,062 2 6	344 13 2	2	18 1 10	29 13 8	..	..	..
Grand totals ..	5	1,486 0 26	744 4 0	48	5,959 3 3	501 8 6	18	7,635 1 21	150 19 0	37	18,539 1 16	13,049 5 3

Taken up during the Year.

District.		Taken up during the Year.	
No. of Selectors.	Area.	No. of Selectors.	Annual Rental payable.
<i>Ordinary Crown Lands—</i>			
Wellington ..	244 2 0	3	£ s. d. 12 18 10
Nelson ..	105,899 3 15	189*	2,013 5 1
Southland ..	40 0 0	1	1 12 0
Totals ..	106,184 1 15	193	2,027 15 11

* Selections of unsurveyed lands in previous years, but which had not been returned owing to want of surveys.

Table 9.—RETURN of LEASE-IN-PERPETUITY LANDS at Year ended 31st March, 1909—continued.

District.	Freeholds acquired from Commencement of System to 31st March, 1909.			Net Area held on 31st March, 1909.			Amount of Rent received during the Year ended 31st March, 1909.			Selectors in Arrear, 31st March, 1909.		
	Number of Purchasers	Area.	Total amount realised.	Number of Selectors.	Area.	Annual Rental.	On the Year's Transactions.	On Past Transactions.	Total.	Number of Selectors.	Area.	Amount.
Ordinary Crown Lands—	7	A. 2,562 2 20 R. P. 1,099 0 0	£ 3,547 11 0 s. 961 12 6 d. 0	1,208	A. 302,377 0 26 R. P. 103,025 1 11	£ 8,337 2 7 s. 3,808 18 7 d. 7	£ .. s. .. d. ..	£ 7,454 0 1 s. 3,795 9 6 d. 6	£ 7,454 0 1 s. 3,795 9 6 d. 6	62	A. 20,062 3 31 R. P. 464 0 0	£ 560 7 2 s. 9 2 5 d. 5
	1	1,980 0 0	1,485 0 0	528	178,790 0 1	7,214 5 0	18 3 5	6,028 17 10	6,028 17 10	15	3,377 1 32	67 19 3
	1	8,645 1 8	4,351 9 9	555	209,147 3 2	6,967 17 4	..	6,037 16 8	6,037 16 8	8	1,619 0 0	42 19 0
	18	1,203 0 0	712 17 0	328	144,833 1 23	3,411 1 2	..	2,332 10 9	2,332 10 9	14	3,155 0 0	33 18 11
	2	1,211 3 8	690 6 2	474	65,985 1 16	1,569 11 6	..	2,957 14 3	2,957 14 3	2	738 1 1	23 19 11
	1	39 0 0	123 10 0	245	75,565 2 23	4,287 4 6	..	858 11 5	858 11 5	28	946 0 12	42 3 0
	3	2,145 2 8	740 14 6	810	201,889 3 6	5,894 12 9	0 16 0	3,826 13 11	3,826 13 11	2	185 0 0	3 18 11
	2	1,174 2 12	1,468 4 4	346	100,956 1 28	2,306 17 6	..	5,419 17 0	5,419 17 0	20	6,533 2 18	123 15 11
	41	20,060 3 16	14,081 5 3	5,174	1,528,657 1 5	47,513 15 4	18 19 5	2,003 14 4	2,004 10 4	7	2,479 0 18	26 12 10
	..	..	..	..	..	..	..	40,715 5 9	40,734 5 2	160	39,560 1 32	934 17 4
Land for Settlements—	..	..	..	635	117,867 3 32	18,503 19 8	..	17,127 13 0	17,127 13 0	45	11,651 1 11	1,189 13 4
	..	..	..	426	119,734 0 17	39,537 16 4	..	35,084 6 8	35,084 6 8	11	531 1 1	289 9 9
	..	..	..	34	4,017 2 15	3,241 2 8	..	3,279 3 8	3,279 3 8	3	123 1 35	17 16 1
	..	..	..	311	39,169 3 22	15,036 15 8	..	14,915 4 7	14,915 4 7	15	1,616 0 0	437 1 6
	..	..	..	13	4,099 0 9	805 15 10	..	491 5 11	491 5 11	2	589 0 0	150 6 2
	..	..	..	303	54,411 3 27	12,288 12 8	..	11,463 17 3	11,463 17 3	14	1,859 1 35	148 1 11
	..	..	..	27	4,990 1 4	538 11 8	..	439 12 0	439 12 0	1	253 3 0	31 14 4
	..	..	..	1,137	173,996 1 21	64,841 8 8	..	53,767 4 7	53,767 4 7	62	12,725 0 98	3,380 10 8
	..	..	..	543	109,654 0 7	34,623 18 0	..	31,234 13 7	31,234 13 7	20	4,604 0 35	1,071 18 0
	..	..	..	234	48,429 1 24	10,719 11 2	..	9,356 10 0	9,356 10 0	23	5,770 3 6	414 13 11
	..	..	..	..	..	..	..	177,159 11 3	177,159 11 3	196	39,724 2 1	7,131 5 8
	..	..	..	3,663	676,370 2 18	200,137 12 4	..	5,761 3 5	5,761 3 5	1	292 0 0	29 4 0
	..	..	..	118	24,387 2 2	6,424 7 6	..	223,636 0	223,654 19 10	357	79,576 3 33	8,095 7 0
	41	20,060 3 16	14,081 5 3	8,955	2,229,415 1 25	254,075 15 2	18 19 5	1,275 15 2	1,275 15 2	..	..	..
Cheviot Estate (Canterbury)	..	..	..	68	13,937 0 0	1,399 13 2	..	..	..	..	..	..

Grand totals	41	20,060 3 16	14,081 5 3	8,955	2,229,415 1 25	254,075 15 2	18 19 5	223,636 0	223,654 19 10	357	79,576 3 33	8,095 7 0
Ellesmere Endowment ..	..	..	..	68	13,937 0 0	1,399 13 2	..	1,275 15 2	1,275 15 2	..	..	..

Table 10.—RETURN of RENEWABLE-LEASE LANDS at Year ended 31st March, 1909.

District.	Taken up during the Year.			Exchanges from other Tenures during the Year.			Forfeitures during the Year.			Surrenders during the Year.			Net Area held on 31st March, 1909.			Amount of Rent received during the Year ended 31st March, 1909.		
	Number of Selectors.	Area.	Annual Rental payable.	Number of Selectors.	Area.	£ s. d.	Number of Selectors.	Area.	£ s. d.	Number of Selectors.	Area.	£ s. d.	Number of Selectors.	Area.	£ s. d.	On the Year's Transactions.	On Past Transactions.	Total.
National Endowment—																		
Auckland	63	A. 23,214 0 23	£ s. d. 747 16 10	7	A. 1,251 2 14	£ s. d. 36 14 6	..	A. R. P. ..	£ s. d. ..	1	A. 200 0 0	£ s. d. 6 0 0	70	A. 24,527 0 37	£ s. d. 785 4 4	£ s. d. 542 11 5	£ s. d. ..	542 11 5
Hawke's Bay	17	6,857 1 32	1,736 16 0	..	..	..	..	..	..	..	..	..	17	6,857 1 32	1,736 16 0	1,264 17 0	..	1,264 17 0
Taranaki	21	15,093 0 0	880 16 0	..	..	..	..	..	..	..	..	..	21	15,093 0 0	880 16 0	808 1 4	..	808 1 4
Wellington	5	561 3 8	66 3 2	..	..	..	1	186 2 0	22 8 0	..	..	..	5	575 1 8	53 15 2	56 8 1	3 12 5	60 0 6
Nelson	130	55,706 3 19	1,144 6 2	4	287 1 9	10 16 10	..	..	..	..	..	..	134	55,994 0 28	1,155 3 0	803 8 3	..	803 8 3
Marlborough	10	4,264 3 20	145 4 8	..	..	..	..	..	..	..	..	..	10	4,264 3 20	145 4 8	330 9 4	..	330 9 4
Westland	103	7,277 2 2	281 0 0	4	389 0 0	8 2 0	..	..	..	3	505 1 32	7 12 0	118	10,008 0 10	343 10 0	386 18 11	26 0 0	412 18 11
Canterbury	10	6,000 1 30	342 8 0	2	26 2 6	5 19 8	..	..	..	..	..	..	12	6,026 3 36	348 7 8	250 5 7	..	250 5 7
Otago	15	2,979 1 25	66 10 8	..	..	..	..	..	..	..	..	..	16	3,093 0 25	70 2 0	54 4 0	3 7 9	57 11 9
Southland	9	1,815 0 5	65 19 0	..	..	..	..	..	..	..	..	..	9	1,815 0 5	65 19 0	52 10 4	..	52 10 4
Totals	383	123,770 2 4	5,477 0 6	17	1,954 1 29	61 13 0	1	186 2 0	22 8 0	4	705 1 32	13 12 0	412	128,260 1 1	5,584 17 10	4,549 14 3	33 0 2	4,582 14 5
Land for Settlements—																		
Auckland	51	15,857 1 5	770 10 8	..	..	..	..	..	..	..	..	..	55	16,065 2 12	843 16 8	555 8 0	10 6 2	565 14 2
Hawke's Bay	31	1,954 0 23	1,142 9 0	..	..	..	..	..	..	1	108 0 0	60 1 6	112	21,721 3 26	9,200 6 2	664 17 3	34,028 0 9	4,692 18 0
Taranaki	2	10 3 10	20 5 0	..	..	..	..	..	..	..	..	..	2	10 3 10	20 5 0	11 1 3	..	11 1 3
Wellington	27	4,543 0 27	1,852 6 2	2	238 1 26	89 0 6	..	..	..	..	..	..	29	4,781 2 13	1,941 6 8	1,375 1 0	..	1,375 1 0
Nelson	16	12,299 0 0	967 11 6	..	..	..	..	..	..	3	2,260 0 0	165 3 0	13	10,039 0 0	802 8 6	930 15 3	..	930 15 3
Marlborough	3	95 1 7	31 6 8	..	..	..	..	..	..	..	..	..	3	95 1 7	31 6 8	17 1 9	..	17 1 9
Westland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Canterbury	51	28,248 1 10	6,562 11 4	2	1,147 3 0	406 10 0	..	..	..	3	3,122 1 0	555 4 0	51	26,735 3 10	6,649 11 4	5,931 8 7	..	5,931 8 7
Otago	44	29,900 1 38	8,123 12 2	..	..	..	..	..	..	2	31 3 30	11 10 4	105	76,137 0 29	13,480 5 4	7,142 9 0	2,279 7 11	9,421 16 11
Southland	3	385 2 20	31 1 0	..	..	..	..	..	..	..	..	..	3	385 2 20	31 1 0	19 2 7	..	19 2 7
Totals	228	93,294 0 20	19,501 13 6	4	1,386 0 26	495 10 6	1	292 2 38	147 2 0	9	5,522 0 30	792 18 10	373	155,972 3 7	33,000 7 4	16,647 4	86,317 14	102,964 19 6
Ordinary Crown Lands—																		
Wellington	81	940 2 26	264 12 2	..	..	..	..	..	..	..	..	..	81	940 2 26	264 12 2	122 17 6	..	122 17 6
Grand totals	692	218,005 1 10	25,243 6 2	21	3,340 2 15	557 3 6	2	479 0 38	169 10 0	13	6,227 2 22	806 10 10	866	285,173 2 34	38,849 17	421,319 16	56,350 15	0,27,670 11 5

Table 11.—RETURN of AGRICULTURAL-LEASE LANDS at Year ended 31st March, 1909.

District.	Expiries during the Year.			Net Area held on 31st March, 1909.			Amounts received during the Year ended 31st March, 1909.				Made Freehold from Commencement of System to 31st March, 1909.			Selectors in Arrear on 31st March, 1909.		
	Number of Selectors.	Area.	Yearly Rental.	Number of Selectors.	Area.	Yearly Rental payable.	On the Year's Transactions.	On Past Transactions.	Total.	Number of Selectors.	Area.	Total Amount realised.	Number of Selectors.	Area.	Amount.	
	A. R. P.	£ s. d.	£ s. d.	A. R. P.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	A. R. P.	£ s. d.	£ s. d.	A. R. P.	£ s. d.	£ s. d.	
Auckland ..	..	..	..	..	..	..	67	2,750 0 0	590 5 0	..	..	..	..	..	..
Westland ..	..	..	..	..	..	..	32	279 0 15	488 12 11	..	..	..	..	..	..
Otago ..	1	27 3 33	1 1 0	16	521 1 29	22 13 3	1 1 0	25 9 5	26 10 5	1,926	131,296 2 3	131,580 12 6	..	..	..
Southland ..	..	..	..	..	..	..	50	6,570 1 5	6,570 5 0	..	..	..	..	..	..
Totals ..	1	27 3 33	1 1 0	16	521 1 29	22 13 3	1 1 0	25 9 5	26 10 5	1,475	140,895 3 23	139,229 15 5	..	..	..

In the Otago Land District one lease over an area of 27 acres 3 roods 33 perches, annual rental £1 1s., was renewed during the year.

Table 12.—RETURN of MINING DISTRICTS LAND OCCUPATION LEASES under Part VIII of "The Land Act, 1908," at Year ended 31st March, 1909.

District.	Taken up during the Year.			Forfeitures and Surrenders during the Year.			Exchanges to other Tenures during the Year			Net Area held on 31st March, 1909.			Amount received during the Year.			Selectors in Arrear on 31st March, 1909.		
	Number of Selectors.	Area.	Annual Rental.	Number of Selectors.	Area.	Annual Rental.	Number of Selectors.	Area.	Annual Rental.	Number of Selectors.	Area.	Annual Rental.	On the Year's Transactions.	On Past Transactions.	Total.	Number of Selectors.	Area.	Amount.
..	8	A. R. P.	£ s. d.	6	A. R. P.	£ s. d.	4	A. R. P.	£ s. d.	172	8,575 2 6	701 3 0	£ s. d.	£ s. d.	£ s. d.	18	A. R. P.	£ s. d.
Auckland ..	8	381 0 0	25 3 0	1	368 2 23	32 0 0	*4	331 2 31	14 5 0	41	2,221 1 1	82 12 6	12 11 6	635 15 3	648 6 9	1	1,018 2	9,138 16 2
Nelson ..	8	657 1 0	24 14 10	1	20 3 17	1 0 0	*4	287 1 9	10 16 10	26	1,813 0 0	56 16 0	26 13 8	80 19 0	107 12 8	2	100 0 0	1 17 6
Marlborough ..	..	..	..	..	..	..	..	..	..	31	390 3 3	23 9 0	50 15 5	50 15 5	50 15 5	1	93 0 0	2 11 4
Westland ..	8	34 2 36	8 10 0	1	11 3 38	1 0 0	*1	100 0 0	2 10 0	31	390 3 3	23 9 0	35 14 0	8 5 9	43 19 9	1	10 0 0	0 5 0
Otago ..	12	417 0 6	12 12 2	11	271 3 39	10 2 0	..	146 1 23	11 18 8	271	10,585 1 11	435 15 4	38 9 1	495 4 5	533 13 6	2	59 3 0	2 16 3
Southland ..	..	..	..	..	..	..	+3	146 1 23	11 18 8	39	1,047 0 82	96 7 0	..	95 7 11	95 7 11	2	94 3 0	6 18 3
Totals ..	36	1,490 0 2	71 0 0	19	673 1 37	44 2 0	12	865 1 23	39 10 6	580	24,633 0 13	1,396 2 10	113 8 3	1,366 7 9	1,479 16 0	26	1,376 0	9,153 4 6

* Exchanged to renewable lease. † Exchanged to lease in perpetuity, being uncompleted transactions finally dealt with during the year.

Table 13.—RETURN of VILLAGE SETTLEMENTS at Year ended 31st March, 1909.

District.	Tenure.	Taken up during the Year.			Exchanges to other Tenures during the Year.			Made Freehold during Year.			Made Freehold from Commencement.			
		Selectors.	Area.	Annual Rental.	Selectors.	Area.	Annual Rental.	Purchasers.	Area.	Amount realised.	Purchasers.	Area.	Total Cash received.	
Ordinary Crown Lands— Auckland .. " .. Hawke's Bay .. " .. " .. Taranaki .. " .. " .. Wellington .. " .. " .. " .. " .. Marlborough .. " .. Westland .. Canterbury .. " .. " .. Otago .. " .. Southland .. " .. " ..	Cash ..	3	A. R. P. 7 1 10	£ s. d. ..	..	A. R. P. ..	£ s. d. ..	..	..	£ s. d. 716 15 9	41	A. R. P. 41 1 18	716 15 9
	Lease in perpetuity ..	..	..	..	..	..	..	..	..	101 7 3	3	5 3 34	101 7 3
	Cash ..	4	1 1 0	..	..	..	..	..	..	..	268	661 2 35	4,255 13 11
	Deferred payment ..	..	..	..	..	..	..	..	..	..	110	1,192 2 2	2,706 18 1
	Perpetual lease ..	..	..	..	..	..	..	..	..	..	9	146 3 1	293 18 1
	Occupation with right of purchase ..	..	..	..	..	..	..	..	..	..	3	2 1 0	15 0 0
	Cash ..	..	..	..	..	..	..	..	..	..	309	853 3 9	6,945 10 9
	Deferred payment ..	..	..	..	..	..	..	..	..	..	120	2,289 2 36	10,907 12 11
	Occupation with right of purchase ..	..	..	..	..	..	..	..	..	..	8	5 3 0	34 10 0
	Cash ..	4	8 0 8	..	..	1	1 0 0	6 0 0	..	..	337	496 0 10	3,913 18 5
	Deferred payment ..	..	..	..	..	..	..	..	..	..	109	970 2 36	3,789 5 4
	Perpetual lease ..	..	..	..	..	..	..	..	..	..	28	324 0 33	1,035 3 1
	Lease in perpetuity ..	..	..	..	..	..	..	..	..	..	3	9 0 23	284 0 0
	Village-homestead special settlement	1	9 0 16	1 0 0
	Renewable lease ..	109	689 1 29	431 6 10
	Cash ..	..	..	..	..	..	..	..	..	..	9	22 1 11	75 16 10
	Deferred payment ..	..	..	..	..	..	..	..	..	..	5	43 1 20	18 15 0
	Cash ..	..	..	..	..	..	..	..	..	..	18	14 1 21	110 0 0
	" ..	..	..	..	..	..	..	..	..	..	166	1,208 0 1	5,481 17 4
Perpetual lease ..	..	..	..	..	..	..	..	..	..	521	2,550 3 1	21,549 18 1	
Village-homestead special settlement ..	..	..	..	..	1	10 0 0	5 0 0	..	..	32	733 3 3	1,499 0 1	
Cash ..	..	..	..	..	1	16 2 6	2 9 8	..	..	..	..	..	..
Deferred payment ..	..	..	..	..	..	..	..	..	..	103	889 2 19	1,756 3 5	
Perpetual lease ..	..	..	..	..	..	..	..	..	..	103	1,130 0 38	2,908 10 7	
Lease in perpetuity ..	..	..	..	..	..	..	..	..	..	25	609 2 22	1,231 0 0	
Cash ..	..	..	..	..	2	3 0 28	116 5 0	..	..	2	3 0 28	116 5 0	
Deferred payment ..	..	..	..	..	..	..	..	..	..	579	2,946 1 28	9,230 10 3	
Perpetual lease ..	..	..	..	..	..	..	..	..	..	272	4,051 2 18	9,680 6 7	
Occupation with right of purchase ..	..	..	..	..	2	37 2 6	75 1 6	..	..	51	799 3 32	1,916 4 2	
Totals ..	..	..	..	..	1	0 1 18	7 5 0	..	..	1	0 1 18	7 5 0	
Land for Settlements— Hawke's Bay .. " .. Otago .. " ..	Totals ..	120	706 0 7	431 6 10	3	35 2 22	8 9 8	12	57 0 29	589 18 9	3,235	22,003 2 17	90,581 5 11	
	Cash ..	..	..	..	..	..	..	..	..	..	3	1 1 32	31 5 0
	Renewable lease ..	1	0 1 0	1 2 6
	" ..	1	9 1 16	7 13 0
National Endowment Lands— Auckland .. Wellington .. Marlborough .. Westland .. Otago .. Southland .. " .. " .. " ..	Totals ..	2	9 2 16	8 15 6	..	..	..	..	..	..	3	1 1 32	31 5 0
	Renewable lease ..	14	67 0 7	34 0 0
	" ..	6	107 1 32	34 12 0
	" ..	29	243 3 12	47 16 0
	" ..	3	0 3 0	3 12 0
	" ..	1	24 1 12	1 0 0
	" ..	4	24 2 37	2 16 0
	Totals ..	57	468 0 20	123 16 0
	Grand totals ..	179	1,183 3 3	563 18 4	3	35 2 22	8 9 8	12	57 0 29	589 18 9	3,238	22,005 0 9	90,612 10 11	

Table 13.—RETURN of VILLAGE SETTLEMENTS at Year ended 31st March, 1909—continued.

District.	Tenure.	Rent and other Payments received during the Year.	Forfeitures during the Year.			Surrenders during the Year.			Net Area held on 31st March, 1909.			Arrears on 31st March, 1909.		
			Selectors.	Area.	Annual Rental.	Selectors.	Area.	Annual Rental.	Selectors.	Area.	Total Annual Rental.	Selectors.	Area.	Amount.
		£ s. d.	A. R. P.	£ s. d.	A. R. P.	£ s. d.	A. R. P.	£ s. d.	A. R. P.	£ s. d.	A. R. P.	£ s. d.	A. R. P.	£ s. d.
Ordinary Crown Auckland	Lands—													
	Cash	176 11 9	..	..	..	..	..	..	..	..	..	..	..	..
	Lease in perpetuity made freehold	101 7 3	..	..	..	..	..	..	..	..	..	..	..	..
	Lease in perpetuity	125 6 5	2	3 3 14	1 4 6	1	2 0 0	0 16 0	57	2,657 2 21	139 2 10	4	397 0 0	39 18 0
Hawke's Bay	Village-homestead special settlement	270 15 3	..	..	..	..	..	..	29	1,186 2 9	114 19 2	1	47 1 4	2 9 6
	Cash	25 10 0	..	..	..	..	..	..	..	..	..	..	..	..
	Occupation with right of purchase	2 15 6	..	..	..	..	..	..	10	47 3 36	6 6 8	..	..	..
	Lease in perpetuity	1,841 6 1	1	2 1 8	0 13 10	1	16 2 26	2 0 0	71	3,883 1 11	1,661 2 10	6	412 0 15	123 5 1
Taranaki	Village-homestead special settlement	80 4 7	..	..	..	..	..	..	27	160 1 18	61 13 4	..	..	..
	Occupation with right of purchase made freehold	6 0 0	..	..	..	..	..	..	..	..	..	..	..	..
	Occupation with right of purchase	2 7 11	..	..	..	..	..	..	8	7 1 0	2 3 6	..	..	..
	Lease in perpetuity	10 19 5	..	..	..	..	..	..	10	69 0 8	10 5 8	..	..	..
Wellington	Cash	118 10 0	..	..	..	..	..	..	..	..	..	..	..	..
	Lease in perpetuity made freehold	284 0 0	..	..	..	..	..	..	..	..	..	..	..	..
	Lease in perpetuity	1,476 18 4	1	1 0 0	0 6 6	1	1 0 8	0 6 10	506	9,511 0 29	1,900 8 8	20	517 0 0	69 10 9
	Village-homestead special settlement	404 13 0	..	..	..	..	..	..	172	2,069 0 17	311 11 7	9	104 0 0	54 8 9
Marlborough	Renewable lease	260 3 10	..	..	..	..	..	..	111	691 2 13	433 14 10	..	..	..
	Perpetual lease	1 2 6	..	..	..	..	..	..	1	10 0 0	1 5 0	..	..	..
	Lease in perpetuity	25 2 10	..	..	..	..	..	..	9	153 0 35	22 3 4	..	..	..
	Village-homestead special settlement	10 0 8	..	..	..	..	..	..	8	58 0 19	7 16 0	1	6 1 7	1 7 0
Westland Canterbury	Lease in perpetuity	13 4 9	..	..	..	..	..	..	12	198 2 17	14 19 4	..	..	..
	Deferred payment	11 10 10	..	..	..	..	..	..	7	64 3 3 4	16 5 4	1	5 0 0	0 18 8
	Perpetual lease	53 9 4	..	..	..	..	..	..	15	188 2 7	52 13 10	2	30 0 14	6 10 0
	Occupation with right of purchase	3 9 8	1	0 1 0	0 12 6	..	..	..	7	2 1 0	3 12 0	..	..	..
Otago	Lease in perpetuity	8 6 6	..	..	..	..	..	..	18	8 2 0	8 13 0	..	..	..
	Village-homestead special settlement	836 1 7	..	..	..	..	..	..	259	8,549 2 34	957 6 0	7	129 1 31	13 0 9
	Lease in perpetuity made freehold	116 5 0	..	..	..	..	..	..	..	..	..	..	..	..
	Deferred payment	3 0 0	..	..	..	..	..	..	2	100 0 0	3 6 0	..	..	..
Southland	Perpetual lease	30 0 1	..	..	..	..	..	..	14	291 2 25	28 17 8	..	..	..
	Occupation with right of purchase	0 10 6	..	..	..	..	..	..	3	2 1 12	0 12 0	..	..	..
	Lease in perpetuity	147 9 5	1	11 2 5	0 12 0	..	..	..	108	1,695 2 0	146 6 8	1	48 0 28	1 2 10
	Village-homestead special settlement	147 12 0	..	..	..	..	..	..	71	1,053 1 39	132 14 10	4	84 2 6	17 3 0
Totals	Perpetual lease made freehold	75 1 6	..	..	..	..	..	..	..	..	..	..	..	..
	Occupation with right of purchase made freehold	7 5 0	..	..	..	..	..	..	..	..	..	..	..	..
	Perpetual lease	133 12 10	..	..	..	..	..	..	72	969 1 24	127 9 8	..	..	..
	Occupation with right of purchase	1 8 9	..	..	..	..	..	..	3	2 3 6	1 5 10	..	..	..
Totals	Lease in perpetuity	403 18 7	1	39 1 1	3 3 2	..	..	..	304	4,742 0 13	469 14 2	12	124 1 2	8 5 2
	Village-homestead special settlement	121 17 5	..	..	..	..	..	..	46	523 3 34	121 10 0	..	..	..
Totals		7,337 19 1	7	58 0 28	6 12 6	3	19 2 34	3 2 10	1,960	38,898 3 30	6,777 19 9	68	1,905 0 27	337 19 6

Table 13.—RETURN of VILLAGE SETTLEMENTS at Year ended 31st March, 1909—continued.

District.	Tenure.	Rent and other Payments re- ceived during the Year.	Forfeitures during the Year.			Surrenders during the Year.			Net Area held on 31st March, 1909.			Arrears on 31st March, 1909.		
			Selectors.	Area.	£ s. d.	Selectors.	Area.	£ s. d.	Selectors.	Area.	Total Annual Rental.	Selectors.	Area.	Amount.
<i>Cheviot Estate—</i> Canterbury ..	Lease in perpetuity	£ s. d. 772 18 11	..	A. R. P. ..	£ s. d. ..	..	A. R. P. ..	£ s. d. ..	92	2,480 1 0	870 10 4	6	A. R. P. 165 2 33	£ s. d. 22' 2 0
<i>Land for Settlements—</i>														
Hawke's Bay ..	Lease in perpetuity	27 7 9	..	..	..	..	..	..	16	34 3 0	24 0 0	4	6 3 27	3 13 0
" ..	Renewable lease ..	0 19 9	..	..	..	..	..	..	1	0 1 0	1 2 6	..	..	..
Otago ..	Lease in perpetuity	309 13 9	..	..	..	..	..	..	30	403 2 28	309 12 8	..	..	..
" ..	Renewable lease ..	6 14 0	..	..	..	..	..	..	1	9 1 16	7 13 0	..	..	..
Totals		344 15 3	..	..	..	..	..	..	48	448 0 4	342 8 2	4	6 3 27	3 13 0
<i>National Endowment Land—</i>														
Auckland ..	Renewable lease	23 14 9	..	..	..	..	..	..	14	67 0 7	34 0 0	..	..	..
Wellington ..	"	25 15 5	..	..	..	..	..	..	6	107 1 32	34 12 0	..	..	..
Marlborough ..	"	53 8 8	..	..	..	..	..	..	29	243 3 12	47 16 0	..	..	..
Westland ..	"	2 14 0	..	..	..	..	..	..	3	0 3 0	3 12 0	..	..	..
Otago ..	"	1 19 9	..	..	..	..	..	..	5	54 0 36	2 14 0	..	..	..
Southland ..	"	10 6 9	..	..	..	..	..	..	13	101 0 26	10 6 6	..	..	..
Totals		117 19 4	..	..	..	..	..	..	70	574 1 33	133 0 6	..	..	..
Grand totals ..		8,573 12 7	7	58 0 28	6 12 6	3	19 2 34	3 2 10	2,170	42,401 2 27	8,123 18 9	78	2,077 3 7	363 14 6

Table 14.—SUMMARY OF POSITION OF VILLAGE SETTLEMENTS at Year ended 31st March, 1909.

District.	Number of Settlers in Occupation.		Area occupied.	Area laid down in Pasture or cultivated.	Annual Rental or Instalments, Interest on Advances.		Amounts advanced to Settlers up to 31st March, 1909.				Amount of Advances which have been repaid to 31st March, 1909.		Total Amount of Interest paid to 31st March, 1909.		Value of Improvements now on the Land.		Arrears of Interest on 31st March, 1909.					
	Resident.	Non-resident.			£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.			
<i>Ordinary Crown Lands—</i>																						
Auckland	74*	12	3,844	0 30	2,153	2 31	274	2	0	958	0	0	1,253	17	6	2,211	17	6	14,563	5	0	2 9 6
Hawke's Bay	72	36	4,091	2 25	2,420	3 15	1,723	2 10	580	0	0	296	15	9	876	15	9	17,982	7	6	123 5 1	
Taranaki...	17	1	76	1 8	76	1 8	12	9	2	..	..	..	..	..	..	..	..	892	0	0	..	
Wellington	753†	36	12,271	3 19	10,693	0 0	2,805	0 2	3,024	17	6	85	0	0	6,695	17	5	141 19 11	109,169	0	0	33 3 6
Marlborough	11	7	221	1 14	172	0 0	34	7	0	..	..	..	..	..	103	15	0	1,905	0	0	..	
Westland	11	1	198	2 17	198	2 17	14	19	4	..	..	..	..	..	2,460	0	0	2,381	0	0	..	
Canterbury	246	60	8,813	3 4	7,692	1 4	1,038	10 2	440	0	0	..	..	..	1,541	5	0	31,692	5	3	2 0 0	
Otago ..	98	100	3,142	3 36	2,060	0 0	311	17	2	1,101	5	0	350	2	2	1,106	2	2	14,152	0	0	10 1 9
Southland	370	55	6,238	0 37	3,690	0 0	719	19	8	756	0	0	..	..	..	975	13	10	31,450	0	0	..
Totals	1,652	308	38,898	3 30	29,156	2 35	6,940	7 6	8,965	2 6	120	0	0	..	14,995	12	10	8,193	5 9	224,186	17 9	170 19 10
<i>Cheviot Estate—</i>																						
Canterbury	69	23	2,480	1 0	2,327	2 0	870	10 4	120	0	0	..	..	..	120	0	0	26	0	12,620	18 0	..
<i>Land for Settlements—</i>																						
Hawke's Bay	3	14	35	0 0	31	0 0	25	2 6	..	..	..	..	..	..	..	..	..	..	482	10	0	3 13 0
Otago ..	30	1	413	0 4	273	0 0	317	5 8	..	..	..	..	..	..	..	..	..	..	3,488	0	0	..
Totals	33	15	448	0 4	304	0 0	342	8 2	..	..	..	..	..	..	..	..	..	..	3,970	10	0	3 13 0
<i>National Endowment Lands—</i>																						
Auckland	14†	..	67	0 7	..	..	34	0	0	..	..	..	..	..	..	..	..	..	..	..	..	..
Wellington	6†	..	107	1 32	..	..	34	12	0	..	..	..	..	..	..	..	..	..	..	..	..	..
Marlborough	8	21	243	3 12	225	0 0	47	16	0	..	..	..	..	..	..	..	..	..	984	0	0	..
Westland	..	3	0	3 0	..	..	3	12	0	..	..	..	..	..	..	..	..	..	..	..	..	..
Otago ..	5	..	54	0 36	20	0 0	2	14	0	..	..	..	..	..	..	..	..	..	98	0	0	..
Southland	6	7	101	0 26	20	0 0	10	6	6	..	..	..	..	..	..	..	..	..	320	0	0	..
Totals	39	31	574	1 33	265	0 0	133	0	6	..	..	..	..	..	..	..	..	..	1,402	0	0	..
Grand totals	1,793	377	42,401	2 27	32,053	0 35	8,286	6 6	9,085	2 6	15,115	12	10	..	..	5 9	242,180	5 9	174	12	10	..

* Includes 16 holdings not reported on.

† Includes 277 holdings not reported on.

‡ Not reported on.

Table 15.—RETURN OF SPECIAL-SETTLEMENT ASSOCIATIONS at Year ended 31st March, 1909.

District.	Taken up during the Year.			Amount of Rent received during the Year.		Total Amount received on Current and Previous Transactions to 31st March, 1909.		Made Freehold.			Number of Selectors required to reside, and actually residing, and Area.		
	Number of Selectors.	Area.	Capital Value per Acre.	£ s. d.	£ s. d.	£ s. d.	During the Year.		From Commencement of System to 31st March, 1909.		Number required to reside.	Actually residing.	
							No.	Area.	No.	Area.			
Selectors in Arrear, 31st March, 1909.													
District.	Forfeitures during the Year.			Surrenders during the Year.		Net Area held, 31st March, 1909.			Selectors in Arrear, 31st March, 1909.			Amount.	
	Number of Selectors.	Area.	Amount.	Number of Selectors.	Area.	Amount.	Number of Selectors.	Area.	Annual Rental.	Number of Selectors.	Area.	Amount.	
£ s. d.													
Ordinary Crown Lands—													
Auckland
Hawke's Bay
Taranaki
Wellington
Nelson
Marlborough
Westland
Canterbury
Otago
Southland
Totals
Land for Settlements—													
Canterbury
Grand totals
£ s. d.													
Ordinary Crown Lands—													
Auckland
Hawke's Bay
Taranaki
Wellington
Nelson
Marlborough
Westland
Canterbury
Otago
Southland
Totals
Land for Settlements—													
Canterbury
Grand totals
£ s. d.													

Table 16.—RETURN of HOMESTEAD LANDS at Year ended 31st March, 1909.

District.	Surrenders during the Year.			Forfeitures during the Year.			Net Area held on 31st March, 1909.			Made Freehold during the Year.			Made Freehold since Commencement of System to 31st March, 1909.		
	Number of Selectors.	Area.	A. R. P.	Number of Selectors.	Area.	A. R. P.	Number of Selectors.	Area.	A. R. P.	Number of Selectors.	Area.	A. R. P.	Number of Selectors.	Area.	A. R. P.
Auckland	464	76,096	3 10
Westland	39	1,480	0 0
Otago	22	2,876	0 0
Totals	525	80,452	3 10

Table 17.—RETURN of SMALL GRAZING-RUNS at Year ended 31st March, 1909.

	Taken up during the Year.			Expires during the Year.			Renewal of Leases during the Year.			Forfeitures during the Year.			Surrenders during the Year.			Exchanges to other Tenures during the Year.		
	Number of Selectors.	Area.	Annual Rent payable.	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.
—																		
Ordinary Crown Lands—																		
Hawke's Bay ..	..	A. R. P.	£ s. d.	8	12,712 3 0	243 11 7	9	12,676 1 5	848 6 9	..	..	..	..	..	..	..	..	..
Taranaki ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wellington ..	..	3,555 0 0	195 0 0	14	13,712 0 6	398 17 10	14	13,410 3 15	987 15 2	..	..	..	..	..	..	..	..	..
Marlborough ..	..	..	..	1	2,762 3 27	190 15 6	1	2,762 3 27	189 19 0	..	..	..	..	..	..	..	..	..
Canterbury ..	..	..	..	15	46,450 2 21	2,245 2 10	14	45,535 3 19	1,367 18 8	..	..	..	..	..	..	..	..	..
Otago ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	2	3,555 0 0	195 0 0	38	75,638 0 35	2,078 7 9	38	74,385 3 26	3,393 19 7	..	..	..	1	240 0 18	15 8 8	1	571 0 0	17 3 0
Land for Settlements—																		
Auckland ..	..	..	..	..	..	..	..	..	..	11,747 0 0	87 7 0	1	2,956 0 0	36 19 0	..	..	..	..
Nelson ..	..	..	..	..	..	..	..	..	..	11,947 0 0	48 13 6	..	..	..	..	..	..	..
Totals ..	..	..	..	..	..	..	..	..	..	23,694 0 0	136 0 6	1	2,956 0 0	36 19 0	..	..	..	..
National Endowment—																		
Hawke's Bay ..	6	23,882 0 0	658 0 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Otago ..	2	1,552 0 0	32 2 6	..	..	..	..	..	..	434 1 31	5 8 6	..	..	..	..	..	..	..
Totals ..	8	25,434 0 0	690 2 6	..	..	..	..	..	..	434 1 31	5 8 6	..	..	..	..	..	..	..
Grand totals ..	10	28,989 0 0	885 2 6	38	75,638 0 35	2,078 7 9	38	74,385 3 26	3,393 19 7	34,128 1 31	141 9 0	24,196 0 18	52 7 8	1	571 0 0	17 3 0	..	..

Table 17.—RETURN of SMALL GRAZING-RUNS at Year ended 31st March, 1909—continued.

District.	Net Area held on 31st March, 1909.			Amount received during the Year.				Arrears on 31st March, 1909.		
	Number.	Area.	Annual Rental.	On the Year's Transactions.	On Past Transactions.	Total.	Number.	Area.	Amount.	
Ordinary Crown Lands—										
Auckland ..	1	A. 18,778 2 6	£ s. d. 216 5 11	£ s. d.	£ s. d. 261 1 5	£ s. d. 261 1 5	1	A. R. P. 584 0 0	£ s. d. 3 13 8	
Hawke's Bay ..	48	119,014 1 39	2,522 10 10	.. ..	3,061 19 4	3,061 19 4	..	..	..
Taranaki ..	8	7,288 2 19	93 6 0	.. ..	84 11 3	84 11 3	1	693 0 0	5 8 4
Wellington ..	79	72,401 2 32	3,426 18 0	97 10 0	2,078 3 1	2,175 13 1	11	11,478 0 0	267 1 6	
Nelson ..	..	..	..	.. ..	.. ..	.. ..	..	..	..
Marlborough ..	10	5,557 3 31	69 19 6	.. ..	72 11 9	72 11 9	..	..	..
Westland ..	..	..	..	.. ..	.. ..	.. ..	..	..	..
Canterbury ..	19	39,771 3 21	2,778 19 4	.. ..	2,680 10 7	2,680 10 7	..	..	..
Otago ..	85	196,883 0 32	5,421 8 4	407 17 0	5,018 3 1	5,426 0 1	7	10,469 0 26	131 12 0	
Southland ..	..	..	..	.. ..	.. ..	.. ..	..	..	..
Totals	250	459,696 1 20	14,529 7 11	505 7 0	13,257 0 6	13,762 7 6	20	23,224 0 26	407 15 6	
Cheviot Estate—										
Canterbury ..	49	45,782 0 7	6,840 5 2	.. ..	6,601 17 6	6,601 17 6	5	4,167 0 0	271 3 8
Land for Settlements—										
Auckland ..	7	32,643 0 0	374 17 2	.. ..	163 15 10	163 15 10	..	..	..
Hawke's Bay ..	16	19,681 0 0	4,440 18 6	.. ..	3,747 7 1	3,747 7 1	..	..	..
Taranaki ..	..	..	..	.. ..	.. ..	.. ..	..	..	..
Wellington ..	7	9,127 0 0	1,795 5 4	.. ..	1,660 14 7	1,660 14 7	..	..	..
Nelson ..	..	..	..	.. ..	.. ..	.. ..	..	..	..
Marlborough ..	31*	54,850 1 16	7,515 16 4	.. ..	6,311 0 6	6,311 0 6	2	5,411 0 0	90 3 8
Westland ..	..	..	..	.. ..	.. ..	.. ..	..	..	..
Canterbury ..	44	81,161 0 26	10,882 6 6	.. ..	10,425 16 1	10,425 16 1	1	1,425 2 0	111 7 4
Otago ..	9	10,733 1 31	1,556 11 2	.. ..	1,447 4 9	1,447 4 9	..	..	..
Southland ..	2	2,808 1 0	201 7 4	.. ..	90 18 8	90 18 8	1	1,658 1 0	62 3 8
Totals	116	211,004 0 33	26,767 2 4	.. ..	23,846 17 6	23,846 17 6	4	8,494 3 0	263 14 8
National Endowment—										
Auckland ..	14	59,855 2 25	442 1 4	.. ..	331 18 6	331 18 6	6	19,556 3 34	78 7 11
Hawke's Bay ..	47	156,247 3 8	2,600 13 8	329 0 0	2,305 6 4	2,634 6 4	..	..	..
Taranaki ..	8	8,160 1 26	126 13 0	.. ..	78 16 5	78 16 5	..	..	..
Wellington ..	8	7,150 3 0	211 6 2	.. ..	135 12 5	135 12 5	..	..	..
Nelson ..	9	16,757 3 18	109 1 10	.. ..	118 15 4	118 15 4	..	..	..
Marlborough ..	72	194,683 1 22	2,657 1 9	.. ..	2,434 16 6	2,434 16 6	13	33,444 0 0	424 0 8
Canterbury ..	36	93,962 0 38	3,281 11 8	.. ..	3,335 4 11	3,335 4 11	..	..	..
Otago ..	210	528,443 3 23	10,204 10 6	16 1 3	9,436 5 0	9,452 6 3	30	69,628 3 37	661 7 6	
Southland ..	19	64,470 2 13	736 10 2	.. ..	692 2 5	692 2 5	3	11,504 1 21	46 0 1
Totals	423	1,129,732 2 13	20,369 10 1	345 1 3	18,868 17 10	19,213 19 1	52	134,134 1 12	1,209 16 2	
Grand totals	838	1,846,215 0 33	68,506 5 6	850 8 3	62,574 13 4	63,425 1 7	81	170,020 0 88	2,152 10 0	

* Four of these hold ordinary small grazing-runs in conjunction therewith, and are therefore not separate holders.

Table 18.—RETURN OF PASTORAL LICENSES at Year ended 31st March, 1909.

District.	Taken up during the Year.			Exchanges to other Tenures during the Year.		Forfeitures during the Year.		Expiries during the Year.		Surrenders during the Year.	
	Number of Selectors.	Area.	Annual Rental.	Number of Selectors.	Area.	Number. of Selectors.	Area.	Number of Selectors.	Area.	Number of Selectors.	Area.
<i>Pastoral Runs.</i>											
<i>Ordinary Crown Lands—</i>											
Auckland..	1	17,113 0 0	£ s. d. 35 0 0	..	A. R. P. ..	..	A. R. P. ..	..	A. R. P. ..	..	A. R. P. ..
Hawke's Bay..	..	..	..	..	..	..	..	..	..	1	11,000 0 0
Taranaki..	..	..	..	..	..	..	..	..	..	..	..
Wellington..	..	..	..	..	..	..	..	..	..	..	..
Nelson..	..	..	..	..	..	..	..	..	..	..	..
Marlborough..	..	..	..	..	..	..	..	..	..	..	..
Westland..	1	6,500 0 0	60 0 0	..	..	..	..	..	..	2	325 0 0
Canterbury..	21	44,640 3 20	51 9 0	..	..	..	..	23	31,134 3 11	4	28,405 0 0
Otago..	1	987 1 0	65 0 0	..	..	..	..	5	5,274 3 14	..	..
Southland..	12	73,855 3 17	645 5 10	..	..	1	2,263 2 32	9	55,028 2 9	3	32,205 0 0
Totals	7	8,884 0 0	134 0 0	..	..	..	..	2	6,024 0 0	..	..
	43	151,980 3 37	990 14 10	..	..	1	2,263 2 32	39	97,462 0 34	10	71,935 0 0
<i>National Endowment Lands—</i>											
Wellington..	2	3,763 2 16	64 0 0	..	..	..	..	19	23,746 0 16	..	..
Westland..	28	66,194 0 0	74 12 6	..	..	..	..	27	17,864 0 0	1	2,400 0 0
Totals	30	69,957 2 16	138 12 6	..	..	..	..	46	41,610 0 16	1	2,400 0 0
Grand totals	73	221,938 2 13	1,129 7 4	..	..	1	2,263 2 32	85	139,072 1 10	11	74,335 0 0

Pastoral Licenses in Mining Districts under Special Regulations.

<i>Ordinary Crown Lands—</i>											
Auckland..	15	2,835 1 7	77 10 4	..	..	2	551 1 19	..	..	..	..
Nelson..	34	6,071 0 8	137 8 3	..	..	..	..	..	..	1	100 0 0
Westland..	3	212 0 0	5 10 0	2	189 0 0	1	321 0 0	..	..	..	..
Totals	52	9,118 1 15	220 8 7	2	189 0 0	3	872 1 19	..	..	1	100 0 0
<i>National Endowment Lands—</i>											
Auckland..	..	..	..	2	819 3 23	3	619 0 0	..	..	..	..
Nelson..	13	3,321 2 38	62 12 0	..	..	..	..	..	..	..	..
Westland..	18	2,303 0 0	56 5 0	1	100 0 0	1	29 2 0	..	..	..	..
Totals	31	5,624 2 38	118 17 0	3	919 3 23	4	648 2 0	..	..	..	..
Grand totals	83	14,743 0 13	339 5 7	5	1,108 3 23	7	1,520 3 19	..	..	1	100 0 0

Table 18.—RETURN of PASTORAL LICENSES at Year ended 31st March, 1909—continued.

District.	Net Area held on 31st March, 1909.				Rent paid during the Year.	Selectors in Arrear on 31st March, 1909.		
	Number of Holders.	Area, approximately.	Average Holdings.	Annual Rental.		Number.	Area.	Amount.
<i>Pastoral Runs.</i>								
<i>Ordinary Crown Lands—</i>								
Auckland ..	22	A. 116,320 0 8 R. P. 0 0 8	A. 5,287 1 4 R. P. 0 32	£ s. d. 264 4 4 749 0 4	£ s. d. 158 9 0 793 17 1	2	A. 1,006 0 0 R. P. 0 0 0	£ s. d. 8 0 6
Hawke's Bay ..	15	92,703 0 0	6,180 0 32	1,792 14 4	389 5 0	..	..	..
Taranaki ..	3	99,641 0 0	33,213 2 26	2,647 2 8	393 0 9	..	..	..
Wellington ..	2	165,829 0 0	82,914 2 0	13,162 4 0	18,951 18 1	2	6,600 0 0	5 10 6
Nelson ..	31	516,562 0 0	16,663 0 0	12,770 15 6	13,543 0 2	..	..	..
Marlborough ..	58	407,759 3 20	7,030 1 15	2,526 3 8	2,501 14 3	..	..	..
Westland ..	84	2,159,972 1 18	25,713 3 33	34,670 10 4	36,121 1 4	4	7,606 0 0	13 11 0
Canterbury ..	166	2,508,425 2 31	15,111 0 0	193 3 8	193 3 8	..	..	..
Otago ..	70	704,998 0 0	10,071 0 0	121 13 0	121 13 0	..	..	..
Southland ..	451	6,772,210 3 37	15,015 3 38	153 17 0	114 4 2	2	18,998 0 0	21 12 0
Totals ..				700 0 0	356 8 4	..	..	..
<i>Cheviot Estate—</i>				1,379 13 4	1,288 13 4	..	..	..
Canterbury ..	1	1,642 0 0	1,642 0 0	247 16 6	234 15 6	2	9,410 0 0	9 15 6
<i>Land for Settlements—</i>				19,862 12 8	19,754 12 11	..	..	..
Otago ..	2	953 2 38	476 3 19	13,241 19 6	14,111 5 11	..	..	..
<i>National Endowment Lands—</i>				1,735 7 0	1,733 17 0	..	..	..
Auckland ..	9	94,665 0 0	10,518 1 13	36,821 6 0	37,593 17 2	4	28,408 0 0	31 7 6
Wellington ..	16	29,780 0 16	1,861 1 0	71,806 13 0	74,029 15 2	8	36,014 0 0	44 18 6
Marlborough ..	15	311,140 0 0	20,743 0 0	..	..	..	..	..
Westland ..	51	212,932 0 0	4,175 0 21	..	..	..	..	..
Canterbury ..	50	1,264,977 0 0	25,299 2 6	..	..	..	..	..
Otago ..	54	1,682,422 0 18	31,156 0 0	..	..	..	..	..
Southland ..	26	670,000 0 0	25,769 0 0	..	..	..	..	..
Totals ..	221	4,265,916 0 34	19,302 3 6	..	..	..	..	..
Grand totals ..	675	11,040,722 3 29	..	..	..	..	..	..
<i>Pastoral Licenses in Mining Districts under Special Regulations.</i>								
<i>Ordinary Crown Lands—</i>								
Auckland ..	69	14,782 0 33	214 0 37	300 2 2	169 7 8	5	2,301 2 0	66 11 4
Nelson ..	80	15,013 0 36	187 2 0	288 11 7	401 19 4	4	700 0 0	9 13 9
Westland ..	51	7,537 0 22	147 3 5	171 1 8	67 10 5	3	183 2 24	3 4 0
Totals ..	200	37,332 2 11	186 2 26	759 15 5	638 17 5	12	3,185 0 24	79 9 1
<i>National Endowment Lands—</i>								
Auckland ..	51	10,161 3 1	199 1 0	208 16 2	172 13 4	9	1,912 0 0	50 14 1
Nelson ..	13	3,321 2 38	255 2 0	62 12 0	5 4 9	..	..	..
Westland ..	60	8,673 0 0	144 2 8	173 9 6	160 0 6	..	..	..
Totals ..	124	22,156 1 39	178 2 29	444 17 8	337 18 7	9	1,912 0 0	50 14 1
Grand totals ..	324	59,489 0 10	..	1,204 13 1	976 16 0	21	5,097 0 24	130 3 2

Table 19.—RETURN of MISCELLANEOUS LEASES and LICENSES, not otherwise enumerated, at Year ended 31st March, 1909.

District.	Objects for which leased.										Total Area in Occupation on 31st March, 1909.				Lessees in Arrear on 31st March, 1909.			
	Coal and Mineral.					Timber-cutting, &c.					Flax-cutting.				Total Area leased during the Year.			
	Area.	Annual Rental.	Amount received.	Area.	Amount received.	Area.	Amount received.	Area.	Amount received.	Area.	Area.	Annual Rental.	Area.	Annual Rental.	Area.	Area.	Annual Rental.	Amount.
Ordinary Crown Lands—																		
Auckland ..	A. R. P.	£ s. d.	£ s. d.	A. R. P.	£ s. d.	A. R. P.	£ s. d.	A. R. P.	£ s. d.	A. R. P.	£ s. d.	£ s. d.	A. R. P.	£ s. d.	A. R. P.	£ s. d.	£ s. d.	
Hawke's Bay ..	..	537 18 8*	41,822 4 9	..	..	28	6,290 2 37	705 10 7	6,290 2 37	3,039 13 9	112 39 764	1 7 234	1 0 24 6	0 24 6	0 24 6	0 24 6	0 24 6	0
Taranaki ..	..	..	..	..	..	25	371 3 34	125 4 6	371 3 34	492 13 9	126 1 630	1 29 69	3 34	2 6 3	3 34	2 6 3	2 6 3	
Wellington ..	..	..	..	..	..	22	986 1 14	153 2 10	986 1 14	211 6 3	223 48,034	1 27 253	0 0	112 15 0	0 0	112 15 0	0 0	
Nelson ..	5 9,693	0 0	247 12 6	13 257	0 0	72	42,039 2 33	160 5 0	52,272 2 33	2,727 9 4	339,149,133	1 33 1,578	5 3 27	4,832	0 0	388 15 2	0 0	
Marlborough ..	..	..	..	21,320	0 0	7	1,156 3 0	147 12 0	2,900 3 0	3,212 14 11	142 41,261	0 35 1,145	11 10 12	1,226	2 25	81 1 8	0 0	
Westland ..	2 1 16	5 0 0	..	..	..	85	4,998 2 31	141 7 0	5,001 0 7	677 7 3	223 59,731	0 24 686	1 0 15	5,154	1 37	18 0 6	0 0	
Canterbury ..	1 100	0 0	15 0 0	2 240	0 0	29	2,208 2 22	125 17 6	2,548 2 22	3,446 8 6	656 94,033	0 19 3,657	13 8 31	2,131	2 18	230 3 9	0 0	
Otago ..	..	..	117 17 6	146 0 17	..	78	15,969 2 18	294 10 3	16,268 3 6	2,565 15 1	744 96,734	1 11 1,376	3 4 10	270	2 34	13 3 3	..	
Southland ..	9 3 30	1 10 0	..	..	3	240 0 0	31 0 0	51 4,574	3 8 5,804	1 7	407 35,264	1 32 902	3 5 ..	..	..	..	..
Totals ..	8 9,805 1 6	{ 537 18 8* 264 2 6 }	1742,641 11 3	1,963 0 17	42,641 11 3	12 1,100 0 11	97 13 9398	78,620 1 28	1,937 2 2	91,488 3 22	68,781 15 73	184 607,230	1 14 14,062	13 8 127	14,439 3 27	885 3 7	..	
Cheviot Estate—																		
Canterbury ..	..	..	..	..	..	3	12 3 20	27 7 0	12 3 20	266 8 2	52 1,293	0 24 259	3 3 7	190 3 8	63 0 0	..	..
Land for Settlements—																		
Auckland ..	..	..	938 10 3	..	..	2	136 0 0	62 19 0	136 0 0	3,728 10 6	13 793	0 24 314	1 33 126	14 6 ..	..	..	..
Hawke's Bay ..	..	..	..	..	..	..	..	..	..	..	12 43	8 16 44	16 1 ..	..	..	..	..
Taranaki ..	..	..	..	..	..	..	..	..	..	..	5 201	14 8 486	16 11 ..	..	..	..	..
Wellington ..	..	..	..	..	..	1	11 0 0	11 0 0	11 0 0	436 16 11	38 571	0 23 258	19 2 4	9 0 29	8 0 8	..	..
Marlborough ..	..	..	..	..	..	1	5 0 0	1 0 0	5 0 0	1 8 4	2 13	2 0 13	2 0 1	8 2 0	1 0 0	..	..
Westland ..	..	..	..	..	..	11	83 3 15	90 9 0	83 3 15	239 19 10	43 1,038	2 11 321	17 4 5	282 3 30	147 0 0	..	..
Canterbury ..	..	..	..	..	..	19	783 0 19	64 6 6	783 0 19	1,062 11 0	78 2,388	1 16 436	14 0 5	13 1 7	2 6 8	..	..
Otago ..	..	..	..	..	..	3	1,328 2 39	55 16 4	1,328 2 39	84 14 2	12 1,430	2 39 75	11 6 ..	..	..	..	..
Southland ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	..	..	938 10 3	..	..	37	2,347 2 33	285 10 10	2,347 2 33	6,012 16 0	204 6,777	0 2 1,480	6 9 15	313 3 26	158 7 4	..	..
National Endowment—																		
Auckland ..	..	..	3,701 15 6	..	..	..	..	..	..	3,836 4 3	.. 2	29,210	2 0 35	19 0 ..	..	..	..
Hawke's Bay ..	..	..	..	..	..	..	..	..	..	..	1 2,300	0 0 28	15 0 ..	..	..	..	..
Wellington ..	..	..	..	..	..	..	..	..	..	..	191 48,941	1 35 1,317	16 5 12	1,716	0 0	242 13 9	..	
Nelson ..	10 1,699	2 4	160 15 0	25 2,913	0 0	..	..	..	..	..	139 82,549	1 33 216	18 2 9	2,682	0 36	14 5 0	..	
Westland ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	10 1,699	2 4	3,952 10 6	25 2,913	0 0	..	..	..	..	..	333 163,001	1 28 1,599	8 7 21	4,398	0 36	256 13 9	..	
Grand totals ..	18 11,504	3 10 { 537 18 8* 318 4 0 }	1747,532 12 0	504,876 0 17	47,532 12 0	12 1,100 0 11	97 13 9504	141,213 1 21	2,385 10 0	158,694 1 19	89,369 12 83	773 778,301 3 28	17,401	12 3 170	19,842 3 17	1,363 9 8	..	

* Amount received on 30,393 tons 3 cwt.

Table 20.—RETURN of GROSS REVENUE RECEIVED during the Year ended 31st March, 1909.

System.	Auckland.	Hawke's Bay.	Taranaki.	Wellington.	Nelson.	Marlborough.	Westland.	Canterbury.	Otago.	Southland.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<i>Ordinary Crown Lands.</i>											
Cash lands	9,332 15 2	493 0 0	1,470 14 2	8,027 0 7	1,199 9 4	273 4 0	53 0 0	2,077 19 1	16,519 0 10	920 2 1	40,366 5 3
Perpetual lease made freehold	779 6 0	292 10 0	.. .. .	266 7 6	.. .. .	324 16 10	.. .. .	54 15 0	241 2 6	546 15 8	2,505 13 6
Occupation with right of purchase made freehold	3,821 10 11	1,665 4 6	2,960 11 3	14,297 19 8	97 11 6	1,124 3 11	.. .. .	323 15 0	127 10 0	169 19 0	24,588 5 9
Lease in perpetuity made freehold	3,547 11 0	961 12 6	.. .. .	*1,577 2 0	3,319 9 9	712 17 0	690 6 2	123 10 0	740 14 6	1,468 4 4	13,141 7 3
Village settlement, perpetual lease made freehold .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	75 1 6	75 1 6
Village settlement, occupation with right of purchase made freehold .. .. .	.. .. .	.. .. .	6 0 0	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	7 5 0	13 5 0
Village settlement, lease in perpetuity made freehold	101 7 3	.. .. .	.. .. .	284 0 0	.. .. .	.. .. .	.. .. .	.. .. .	116 5 0	.. .. .	501 12 3
Improved-farm special settlement, occupation with right of purchase made freehold	90 0 0	.. .. .	.. .. .	1,059 15 4	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	1,149 15 4
Deferred payment, rural	79 3 5	.. .. .	8 16 2	.. .. .	.. .. .	.. .. .	.. .. .	1 4 11	129 4 9	120 9 5	338 18 8
Deferred payment, pastoral .. .. .	.. .. .	21 5 0	.. .. .	.. .. .	73 14 10	.. .. .	.. .. .	755 5 10	25 18 8	567 10 4	1,443 14 8
Perpetual lease and small areas	810 0 2	100 12 5	231 9 6	170 8 8	29 12 2	23 6 8	6 16 0	94 0 5	1,004 7 10	338 18 10	2,809 12 8
Occupation with right of purchase	17,105 16 0	9,504 7 10	6,236 19 3	12,101 2 8	628 0 10	430 4 0	473 0 4	238 1 6	1,249 11 1	1,665 18 1	49,633 1 7
Lease in perpetuity	7,454 0 1	3,795 9 6	6,028 17 10	6,056 0 1	2,332 10 9	2,957 14 3	858 11 5	3,826 13 11	3,419 17 0	2,004 10 4	40,734 5 2
Renewable lease (not national endowment) .. .. .	.. .. .	.. .. .	.. .. .	122 17 6	.. .. .	.. .. .	.. .. .	.. .. .	26 10 5	.. .. .	122 17 6
Agricultural lease .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	107 12 8	50 15 5	43 19 9	.. .. .	533 13 6	95 7 11	1,479 16 0
Mining districts land occupation leases	648 6 9	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	320 11 9
Village settlement, cash	176 11 9	25 10 0	.. .. .	118 10 0	.. .. .	.. .. .	.. .. .	11 10 10	3 0 0	14 10 10	14 10 10
Village settlement, deferred payment .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	53 9 4	30 0 1	133 12 10	218 4 9
Village settlement, perpetual lease .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	3 9 8	0 10 6	1 8 9	10 12 4
Village settlement, occupation with right of purchase .. .. .	.. .. .	2 15 6	2 7 11	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .
Village settlement, lease in perpetuity	135 6 5	1,841 6 1	10 19 5	1,476 18 4	.. .. .	25 2 10	13 4 9	8 6 6	147 9 5	403 18 7	4,032 12 4
Village settlement, renewable lease .. .. .	.. .. .	.. .. .	.. .. .	260 3 10	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	260 3 10
Village-homestead special settlement	270 15 3	80 4 7	.. .. .	404 13 0	.. .. .	10 0 8	.. .. .	836 1 7	147 12 0	121 17 5	1,871 4 6
Special-settlement association, perpetual lease .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	47 7 2	.. .. .	.. .. .	47 7 2
Special-settlement association, lease in perpetuity	312 17 9	79 10 5	818 18 0	4,871 3 1	.. .. .	.. .. .	.. .. .	77 6 9	109 0 8	.. .. .	6,268 16 8
Improved-farm special settlement, occupation with right of purchase	574 19 2	.. .. .	.. .. .	1,882 0 9	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	155 15 6	2,612 15 5
Improved-farm special settlement, lease in perpetuity	86 14 2	248 13 11	1,814 16 4	417 18 3	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	148 17 11	2,717 0 7
Small grazing-runs	261 1 5	3,061 19 4	84 11 3	2,175 13 1	.. .. .	72 11 9	.. .. .	2,680 10 7	5,426 0 1	.. .. .	13,762 7 6
Pastoral runs	158 9 0	793 17 1	.. .. .	1,792 14 4	339 5 0	2,647 2 8	393 0 9	13,951 18 1	13,543 0 2	2,501 14 3	86,121 1 4
Pastoral licenses in mining districts under special regulations	169 7 8	.. .. .	.. .. .	.. .. .	401 19 4	.. .. .	67 10 5	.. .. .	.. .. .	.. .. .	638 17 5
Coal and mineral leases	537 18 8	.. .. .	.. .. .	.. .. .	786 2 11	.. .. .	381 15 0	115 9 3	794 0 6	380 15 3	2,996 1 7
Prospectors' mining leases .. .. .	.. .. .	7 10 0	.. .. .	9 18 0	22 5 0	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	39 13 0
Timber licenses and other leases, and sale of timber	14,212 12 10	1,032 16 5	17 13 9	328 15 1	1,091 0 6	1,474 12 11	10 18 9	199 2 7	117 17 6	1,527 19 3	20,013 9 7
Carried forward	60,656 10 10	24,008 5 1	19,692 14 10	57,701 1 9	10,428 14 7	10,127 15 5	2,992 3 4	25,479 18 0	46,452 7 0	13,356 2	3270,895 13 1

* Includes £92 2s. farm homestead made freehold

Table 20.—RETURN of GROSS REVENUE RECEIVED during the Year ended 31st March, 1909—continued.

System.	Auckland.	Hawke's Bay.	Taranaki.	Wellington.	Nelson.	Marlborough.	Westland.	Canterbury.	Otago.	Southland.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
<i>Ordinary Crown Lands—continued.</i>											
Brought forward ..	60,656 10 10	24,008 5 1	19,692 14 10	57,701 1 9	10,428 14 7	10,127 15 5	2,992 3 4	25,479 18 0	46,452 7 0	13,356 2 3	270,895 13 1
Flax-cutting..	53 3 9	1,776 1 7	110 0 7	1,098 4 7	450 15 5	2 8 4	17 10 0	..	13 10 0	38 0 0	124 12 1
Miscellaneous leases ..	2,079 5 0	165 3 0	155 16 0	351 13 0	400 19 0	65 12 0	218 3 4	..	1,153 13 9	779 8 1	7,766 4 0
Transfer, lease, and license fees, &c. ..	634 1 0	152 15 6	358 9 5	614 4 2	377 5 6	696 14 1	301 6 0	151 7 0	279 7 6	145 13 0	2,650 17 6
Rents of reserves ..	142 3 3	846 19 8	518 5 8	3,236 16 5	177 15 0	21 5 7	49 0 2	2,741 8 2	60 2 6	..	5,192 2 9
Miscellaneous ..	1,368 1 5	203 18 1	73 10 3	169 5 0	51 8 10	11 19 8	55 10 11	209 9 0	2,007 7 0	176 7 5	8,607 18 1
Crown-grant fees ..	203 18 1	36 5 4	6 10 0	200 4 5	..	868 7 11	6 13 11	54 1 4	36 9 6	52 9 10	696 1 9
State forests ..	27,609 11 11	70 0 0	26 3 4	954 12 6	..	..	..	390 8 6	426 10 10	3,077 19 0	32,649 12 7
Survey liens on Native lands ..	564 17 1	664 1 11	..	116 3 3	73 15 6	..	..	..	8 11 1	16 0 0	2,203 14 10
Survey fees which do not form part payment of land ..	..	..	..	..	..	..	..	45 18 6	..	..	260 8 4
Survey fees which do form part payment of land ..	50 0 0	..	415 10 0	214 15 10	..	..	..	2 5 0	135 9 1	..	137 14 1
Payments of capital value under section 191 of "The Land Act, 1908" ..	..	..	..	..	..	..	..	..	..	..	680 5 10
Totals ..	93,361 12 4	27,719 12 1	21,357 0 1	64,577 0 11	11,960 13 10	11,964 14 8	3,640 7 8	29,074 15 6	50,573 8 3	17,641 19 7	7331,871 4 11
<i>Cheviot Estate.</i>											
Lease in perpetuity ..	..	..	..	..	..	..	..	5,761 3 5	..	..	5,761 3 5
Village homesteads ..	..	..	..	..	..	..	..	6,772 18 11	..	..	772 18 11
Grazing farms ..	..	..	..	..	..	..	..	6,601 17 6	..	..	6,601 17 6
Pastoral runs ..	..	..	..	..	..	..	..	193 3 8	..	..	193 3 8
Miscellaneous leases ..	..	..	..	..	..	..	..	266 8 2	..	..	266 8 2
Miscellaneous ..	..	..	..	..	..	..	..	11 5 10	..	..	11 5 10
Payments of capital value under section 191 of "The Land Act, 1908" ..	..	..	..	..	..	..	..	500 0 0	..	..	500 0 0
Totals ..	..	..	..	..	..	..	..	14,106 17 6	..	..	14,106 17 6
<i>Land for Settlements.</i>											
Cash lands ..	389 15 0	352 11 3	..	84 19 5	..	140 0 0	..	163 1 0	..	15 0 0	1,145 6 8
Lease in perpetuity ..	17,127 13 0	35,084 6 8	3,279 3 8	14,915 4 7	491 5 11	11,463 17 3	439 12 0	53,767 4 7	31,234 13 7	9,356 10 0	177,159 11 3
Renewable lease ..	565 14 2	4,692 18 0	11 1 3	1,375 1 0	930 15 3	17 1 9	..	5,931 8 7	9,421 16 11	19 2 7	22,964 19 6
Lease in perpetuity, village ..	..	27 7 9	..	..	..	..	..	..	309 13 9	..	337 1 6
Renewable lease, village ..	..	0 19 9	..	..	..	..	..	..	6 14 0	..	7 13 9
Special - settlement associations, lease in perpetuity ..	..	..	..	..	..	..	..	147 1 1	..	..	147 1 1
Small grazing runs ..	163 15 10	3,747 7 1	..	1,660 14 7	..	6,311 0 6	..	10,425 16 1	1,447 4 9	90 18 8	23,846 17 6
Pastoral runs ..	..	..	..	..	..	..	..	..	121 13 0	..	121 13 0
Miscellaneous ..	3,728 10 6	1,171 15 10	221 13 9	2,555 12 3	11 6 8	486 16 11	1 8 4	1,032 19 10	1,062 11 0	438 12 1	10,711 7 2
Payments of capital value under section 191 of "The Land Act, 1908" ..	..	..	..	100 0 0	..	..	..	1,105 15 8	..	..	1,205 15 8
Totals ..	21,975 8 6	45,077 6 4	3,511 18 8	20,631 11 10	1,433 7 10	18,418 16 5	441 0 4	72,573 6 10	43,604 7 0	9,920 3 4	237,647 7 1

Table 20.—RETURN OF GROSS REVENUE RECEIVED during the Year ended 31st March, 1909—continued.

System.	Auckland.	Hawke's Bay.	Taranaki.	Wellington.	Nelson.	Marlborough.	Westland.	Canterbury.	Otago.	Southland.	Totals.
<i>National Endowment Lands.</i>											
Renewable lease, ordinary ..	£ s. d. 542 11 5	£ s. d. 1,264 17 0	£ s. d. 808 1 4	£ s. d. 60 0 6	£ s. d. 803 8 3	£ s. d. 330 9 4	£ s. d. 412 18 11	£ s. d. 250 5 7	£ s. d. 57 11 9	£ s. d. 52 10 4	£ s. d. 4,582 14 5
Renewable lease, village settlement ..	23 14 9	.. 6 4	..	25 15 5	..	53 8 8	2 14 0	..	1 19 9	10 6 9	117 19 4
Small grazing-runs ..	331 18 6	2,634 6 4	78 16 5	135 12 5	118 15 4	2,434 16 6	..	3,335 4 11	9,452 6 3	692 2 5	19,213 19 1
Pastoral runs ..	114 4 2	..	..	356 8 4	.. 4 9	1,288 13 4	234 15 6	19,754 12 11	14,111 5 11	1,733 17 0	37,593 17 2
Pastoral licenses in mining districts under special regulations ..	172 13 4	..	..	..	..	..	160 0 6	..	..	..	337 18 7
Coal and mineral leases ..	..	..	..	..	737 11 5	..	4 13 0	..	..	..	742 4 5
Timber licenses and sales of timber ..	3,791 15 6	..	..	..	1,309 12 1	..	8,009 15 8	..	..	..	13,111 3 3
Flax-cutting ..	..	..	..	..	..	..	11 3 0	..	..	..	11 3 0
Miscellaneous ..	44 8 9	401 17 6	..	14 9 6	137 17 6	..	200 18 0	..	..	..	799 11 3
Totals ..	5,021 6 5	4,301 0 10	886 17 9	592 6 2	3,112 9 4	4,107 7 10	9,036 18 7	23,340 3 5	23,623 3 8	2,488 16 6	76,510 10 6
Native townships ..	42 6 2	373 6 3	..	380 12 3	..	..	..	..	..	..	796 4 8
Workers' dwellings, ordinary ..	..	..	..	431 7 6	..	..	..	440 11 4	..	..	871 18 10
Workers' dwellings, land for settlements ..	873 6 0	..	..	641 11 8	..	..	..	..	514 19 1	..	2,029 16 9
Endowment lands, ordinary ..	996 7 1	481 5 7	197 15 6	285 5 6	16,914 16 2	..	2,089 6 2	1,609 14 9	5,770 18 2	1,989 16 1	30,335 5 0
Thermal-springs Districts Act: Rents ..	2,205 18 2	..	..	..	..	..	..	..	..	..	2,205 18 2
Grand totals ..	124,476 4 8	77,952 11 1	25,953 12 0	87,599 15 10	33,421 7 2	34,490 18 11	15,207 12 9	141,145 9	413,086 16 2	32,040 15	6696,375 3 5

Table 21.—RETURN OF LANDS RESERVED AND ALIENATED under Acts, or for Scrip.

District.	During the Year ended 31st March, 1909.					Total Area reserved, granted under Acts, &c., from the Foundation of the Dominion to the 31st March, 1909.	
	Area reserved for various Purposes.	Area granted under Acts.	Area granted in Satisfaction of Scrip.	Total Area alienated during the Year.	Acres.	Acres.	Acres.
Auckland ..	Acres. 5,534	Acres. ..	Acres. ..	Acres. 5,534	Acres. 3,566,283	Acres. 3,566,283	Acres. 3,566,283
Hawke's Bay ..	..	..	..	..	..	..	..
Taranaki ..	3,424	1,693	..	5,117	433,596	433,596	433,596
Wellington ..	7,076	..	..	7,076	700,343	700,343	700,343
Nelson ..	642	..	..	642	869,149	869,149	869,149
Marlborough ..	176	..	..	176	282,974	282,974	282,974
Westland ..	344	4,475*	..	4,819	202,450	202,450	202,450
Canterbury ..	351	1,653	..	2,004	205,862	205,862	205,862
Otago ..	867	7,176*	..	8,043	1,360,133	1,360,133	1,360,133
Southland ..	167,503	116,966*	..	284,469	715,395	715,395	715,395
Totals ..	186,809	131,963	..	318,772	3,494,887	3,494,887	3,494,887

* Land set apart under "The South Island Landless Natives Act, 1906," for the purpose of granting to landless Natives.

Table 22.—FORFEITURES and SURRENDERS during the Year ended 31st March, 1909, showing under each Tenure the Number of Selectors who have forfeited and surrendered their Holdings, and the Area and Rental of such Holdings.

Tenure.	Forfeitures.			Surrenders.		
	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.
<i>Ordinary Crown Lands—</i>		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Deferred payment .. ..	..	..	..	..	..	..
Perpetual lease	1	996 2 35	27 0 4	..	..	..
Occupation with right of purchase	65	22,836 1 33	693 0 0	3	785 2 17	37 5 10
Lease in perpetuity	20	4,897 0 37	156 15 4	16	7,617 0 11	121 5 4
Agricultural lease .. ..	..	..	..	..	..	..
Mining districts occupation leases	8	399 1 3	33 10 0	11	274 0 34	10 12 0
<i>Village settlement,—</i>						
Deferred payment .. ..	..	..	..	..	..	..
Perpetual lease .. ..	..	..	..	..	..	..
Occupation with right of purchase	1	0 1 0	0 12 6	..	..	..
Lease in perpetuity	6	57 3 28	6 0 0	3	19 2 34	3 2 10
Homestead special settlement	..	..	..	..	..	..
Special-settlement associations	..	..	..	..	..	..
Improved-farm special settlements	1	92 2 0	7 12 0	..	..	..
Homestead .. ..	..	..	..	..	..	..
Small grazing-runs .. ..	..	..	..	1	1,240 0 18	15 8 8
Pastoral runs	1	2,263 2 32	4 0 0	10	71,935 0 0	603 19 6
Pastoral licenses in mining districts under special regulations	3	872 1 19	13 6 0	1	100 0 0	1 13 4
Miscellaneous	12	1,530 3 11	61 15 0	18	5,839 0 18	43 17 0
Totals	118	33,947 0 38	1,003 11 2	63	87,810 3 12	837 4 6
<i>Cheviot Estate,—</i>						
Lease in perpetuity .. ..	..	..	..	..	..	..
Renewable lease .. ..	..	..	..	..	..	..
Village-homestead special settlement	..	..	..	..	..	..
Grazing-farms .. ..	..	..	..	..	..	..
Miscellaneous .. ..	..	..	..	2	1 1 0	3 2 0
Totals .. ..	..	..	..	2	1 1 0	3 2 0
<i>Land for Settlements—</i>						
Lease in perpetuity	28	1,062 2 6	344 13 2	2	18 1 10	29 13 8
Renewable lease	1	292 2 38	147 2 0	9	5,522 0 30	792 18 10
Village lease in perpetuity .. ..	..	..	..	..	..	..
Village renewable lease .. ..	..	..	..	..	..	..
Small grazing-runs	2	3,694 0 0	136 0 6	1	2,956 0 0	36 19 0
Pastoral runs .. ..	..	..	..	..	..	..
Miscellaneous	1	196 1 10	60 0 0	..	..	..
Totals	32	5,245 2 14	687 15 8	12	8,496 2 0	859 11 6
<i>National Endowment Lands—</i>						
Renewable lease, ordinary	1	186 2 0	22 8 0	4	705 1 32	13 12 0
Renewable lease, village settlement	..	..	..	..	..	..
Small grazing-runs	1	434 1 31	5 8 6	..	..	..
Pastoral runs .. ..	..	..	..	1	2,400 0 0	3 1 0
Pastoral licenses in mining districts under special regulations	4	648 2 0	13 5 0	..	..	..
Miscellaneous	5	3,151 0 32	13 0 0	12	5,348 0 38	26 2 10
Totals	11	4,420 2 23	54 1 6	17	8,453 2 30	42 15 10
Thermal springs	4	23 0 22	30 0 0	..	..	..
Grand totals	165	43,636 2 17	1,775 8 4	94	104,762 1 2	1,742 13 10

Table 23.—RETURN of LAND TAKEN UP within the Thermal Springs District of Auckland at Year ended 31st March, 1909.

Locality.	Net Area held on 31st March, 1909.			Amount received during the Year.	Selectors in Arrear on 31st March, 1909.		
	Number of Selectors.	Area.	Yearly Rent payable.		Number of Selectors.	Area.	Amount.
		A. R. P.	£ s. d.	£ s. d.		A. R. P.	£ s. d.
Rotorua	306	6,057 0 2	2,158 16 4	2,205 18 2	14	47 3 13	124 18 0

Table 24.—RETURN showing PAYMENTS of CAPITAL VALUE under Section 191 of “The Land Act, 1908,” during the Year ended 31st March, 1909.

Tenure.	Amount deposited during the Year.			Tenants whose Deposits in the Aggregate are under 33 per Cent. of Capital Value.								Tenants whose Deposits aggregate 33 or more per Cent. of Capital Value.								Totals.			
	Number of Selectors.	Area held.	Amount deposited.	Number of Tenants.	Net Area held.	Original Annual Rental payable.	Total Payments made on Account of Capital Value.	Annual Rental now payable as reduced by such Payments.	Number of Tenants.	Net Area held.	Original Annual Rental payable.	Total Payments made on Account of Capital Value.	Annual Rental now payable as reduced by such Payments.	Number of Tenants.	Net Area held.	Original Annual Rental payable.	Total Payments made on Account of Capital Value.	Annual Rental now payable as reduced by such Payments.	Number of Tenants.				
ORDINARY CROWN LANDS.																							
Lease in Perpetuity—																							
Ordinary ..	3	1,431 0 0	511 6 8	..	..	..	..	..	3	1,431 0 0	44 14 10	511 6 8	23 5 10	3	1,431 0 0	44 14 10	511 6 8	23 5 10	
Village settlement ..	3	17 2 0	43 2 6	..	..	..	..	..	3	30 0 19	6 0 6	64 2 6	3 9 2	3	30 0 19	6 0 6	64 2 6	3 9 2	
Special-settlement associations ..	2	302 0 0	125 16 8	..	..	..	..	..	3	518 0 0	25 18 0	215 16 8	17 5 4	3	518 0 0	25 18 0	215 16 8	17 5 4	
Totals ..	8	1,750 2 0	680 5 10	..	..	..	..	..	9	1,979 0 19	76 13 4	791 5 10	44 0 4	9	1,979 0 19	76 13 4	791 5 10	44 0 4	
CHEVIOT ESTATE.																							
Lease in perpetuity ..	1	106 3 0	500 0 0	..	..	..	..	..	1	106 3 0	55 10 2	500 0 0	30 10 2	1	106 3 0	55 10 2	500 0 0	30 10 2	
LAND FOR SETTLEMENTS.																							
Lease in perpetuity ..	3	416 1 22	1,205 15 8	1	255 3	0 111 17 10	680 0	0 77 17 10	2	160 2 22	71 9 6	525 15 8	46 3 8	3	416 1 22	183 7	41,205 15	8 124 1 6					
Grand totals ..	12	2,273 2 22	2,386 1 6	1	255 3	0 111 17 10	680 0	0 77 17 10	12	2,246 2	1 203 13 0	1,817 1	6 120 14 2	13	2,502 1	1 315 10 10	2,497 1	6 198 12 0					

Table 25.—RETURN showing the AREA of BUSH FELLED on Lands sold or leased by the Crown from 1st April, 1895, to 31st March, 1909.

District.	Felled during the Year on Lands taken up during the Year.			Felled during the Year on Lands taken up in Previous Years.			Total felled at 31st March, 1909.		
	A.	B.	P.	A.	B.	P.	A.	B.	P.
Auckland	16,432	0	0	159,214	0	0
Hawke's Bay	1,575	0	0	136,965	0	0
Taranaki	4,000	0	0	59,080	0	0
Wellington	9,600	0	0	701,460	0	0
Nelson	8,400	0	0	50,617	0	0
Marlborough	3,500	0	0	97,000	0	0
Westland	2,500	0	0	68,120	0	0
Otago	450	0	0	23,864	0	0
Southland	350	0	0	13,539	0	0
Totals	46,807	0	0	1,309,859	0	0

Table 26.—STATEMENT of the NUMBER of SELECTORS on the BOOKS of the LANDS DEPARTMENT on 31st March, 1909.

District.	Deferred Pay- ment.		Perpetual Lease.		Occupation with Right of Purchase.		Lease in Perpetuity				Renewable Lease.				Agricultural Lease.		Mining Districts Land Occupation Leases.		Village Settlement, Deferred Pay- ment.		Village Settlement, Perpetual Lease.		Village Settlement Occupation with Right of Purchase.		Village Settlement, Lease in Perpetuity.		Crown Lands.		National Endowment Lands.		Land for Settlements.	
	Crown Lands.	Endowment Lands.	Crown Lands.	Endowment Lands.	Crown Lands.	Endowment Lands.	Cheviot Estate.	Land for Settlements.	Ordinary Endowment Lands.	Land for Settlements.	Ordinary Endowment Lands.	Crown Lands.	Endowment Lands.	Crown Lands.	Endowment Lands.	Crown Lands.	Endowment Lands.	Crown Lands.	Land for Settlements.	Endowment Lands.	Crown Lands.	Land for Settlements.	Endowment Lands.	Crown Lands.	Land for Settlements.	Endowment Lands.	Crown Lands.	Land for Settlements.	Endowment Lands.	Crown Lands.	Land for Settlements.	
Auckland	14	..	194	1	2,434	6	1,208	..	70	55	..	23	635	..	172	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hawke's Bay	1	..	9	5	305	..	207	..	17	112	..	18	426	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Taranaki..	..	..	12	..	462	..	473	..	21	2	..	..	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wellington	..	..	12	..	654	..	528	..	5	29	..	..	311	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nelson ..	14	..	11	..	249	..	555	..	81	13	..	15	303	..	41	104	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Marlborough	..	..	4	..	39	..	328	..	134	8	..	..	13	..	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Westland	..	..	7	..	106	..	474	..	10	3	..	..	27	..	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Canterbury	4	..	19	..	24	..	245	..	118	51	..	68	1,137	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Otago ..	12	1	172	16	277	1	810	9	12	105	..	9	1,543	..	271	..	7	2	14	8	108	30	4	..	..	..	..	..	..	..	..
Southland	..	..	54	11	347	..	346	..	16	3	..	44	234	..	39	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	46	1	494	33	4,897	7	5,174	118	81	373	6	16	3,663	177	580	104	9	102	31	1,095	46	4	2

District.	Village-homestead Special Settlement.		Special- settlement Associations.		Improved- farm Special Settlements: Crown Lands.		Small Grazing-runs.				Grazing-farms: Cheviot		Pastoral +				Miscellaneous.				Thermal Springs, Rotorua.		Workers' Dwellings.		Total.						
	Crown Lands.	Cheviot Estate.	Ordinary Endowment Lands.	Land for Settlements.	Complete.	Not registered.	Crown Lands.	Land for Settlements.	National Endowment Lands.	Ordinary Endowment Lands.	Grazing-farms: Cheviot Estate.	Crown Lands.	Cheviot Estate.	Land for Settlements.	National Endowment Lands.	Ordinary Endowment Lands.	Crown Lands.	Cheviot Estate.	Land for Settlements.	National Endowment Lands.	Ordinary Endowment Lands.	Crown Lands.	Land for Settlements.	Crown Lands.	Land for Settlements.						
Auckland	29	..	..	..	51	..	91	7	14	12	..	..	..	13	..	1	212	..	..	..	4	..	..	..	..	24	5,794				
Hawke's Bay	27	..	14	16	16	..	15	16	47	2	..	..	..	12	..	..	112	..	..	2	2	2	..	..	..	..	..	..	..	..	..
Taranaki..	..	..	87	72	233	..	..	8	8	..	..	..	..	..	..	..	126	..	..	..	3	3	..	..	..	..	..	..	..	..	..
Wellington	172	..	449	..	..	..	79	7	..	..	..	..	..	..	..	..	223	..	..	1	14	14	12	..	..	25	3,496				
Nelson ..	..	..	..	..	..	..	..	..	9	..	..	..	..	..	..	..	339	..	..	..	341	341	..	..	..	..	..	..	..	..	..
Marlborough	8	..	20	..	..	..	10	27	..	..	..	82	..	..	..	..	142	..	..	191	..	..	..	..	..	..	..	..	..	..	..
Westland	..	..	..	..	..	..	..	..	72	..	..	..	..	..	..	..	223	..	..	139	..	..	..	..	..	..	..	..	..	..	..
Canterbury	259	92	..	..	..	..	..	44	36	..	..	109	..	..	111	..	656	52	43	..	17	17	24	..	..	..	..	..	..	..	..
Otago ..	71	..	14	9	..	..	85	9	210	19	..	84	1	2	54	5	744	..	78	..	4	4	..	..	..	20	3,249				
Southland	46	..	..	2	45	..	..	2	19	8	..	166	..	..	26	7	407	..	12	..	3	3	..	..	..	..	..	..	..	..	..
Totals	612	92	77	662	523	72	651	1	423	41	49	651	1	2	345	16	3,184	52	204	333	391	391	36	69	..	..	26,184				

* Endowments. † Includes pastoral licenses in mining districts under special regulations.

Table 27.—STATEMENT showing the Total Number of CROWN TENANTS, with Area selected or held, the Yearly Rent payable, and Rent in Arrear, on 31st March, 1909.

Tenure.	Total Number of Tenants.	Total Area held by such Tenants.	Total Yearly Rental or Instalment payable.	Total Amount of such Rents or Payments in Arrear.
<i>Ordinary Crown Lands—</i>		A. R. P.	£ s. d.	£ s. d.
Deferred payment	46	16,961 3 19	801 13 9	4 19 10
Perpetual lease	494	86,908 3 16	3,044 12 11	121 7 0
Occupation with right of purchase ..	4,897	1,656,308 3 24	70,116 7 4	960 19 0
Lease in perpetuity	5,174	1,528,657 1 5	47,513 15 4	934 17 4
Renewable lease	81	940 2 26	264 12 2	..
Agricultural lease	16	521 1 29	22 13 3	..
Homestead .. .. .	..	..	..	..
Mining districts land occupation leases ..	580	24,633 0 13	1,396 2 10	153 4 6
<i>Village settlements—</i>				
Deferred payment	9	164 3 3	19 11 4	0 18 8
Perpetual lease	102	1,459 2 16	210 6 2	6 10 0
Occupation with right of purchase ..	31	62 2 14	14 0 0	..
Lease in perpetuity	1,095	22,919 0 14	4,392 16 6	242 1 10
Renewable lease	111	691 2 13	433 14 10	..
<i>Village-homestead special settlements—</i>				
Perpetual lease	266	4,483 2 32	636 19 6	49 14 3
Lease in perpetuity	346	9,117 2 18	1,070 11 5	38 14 9
<i>Special-settlement associations—</i>				
Deferred payment .. .. .	..	..	..	..
Perpetual lease	10	669 0 8	48 4 0	0 8 5
Lease in perpetuity	652	115,062 2 14	6,075 6 5	131 19 6
<i>Improved-farm special settlements—</i>				
Occupation with right of purchase ..	265	31,445 3 39	2,968 7 4	312 15 11
Lease in perpetuity	330	41,680 2 7	2,767 10 4	..
Small grazing-runs	250	459,696 1 20	14,529 7 11	407 15 6
Pastoral runs	451	6,772,210 3 37	34,670 10 4	13 11 0
Pastoral licenses in mining districts under special regulations	200	37,332 2 11	759 15 5	79 9 1
Miscellaneous leases	3,184	607,230 1 14	14,062 13 8	885 3 7
Totals	18,590	11,419,159 1 32	205,819 12 9	4,344 10 2
<i>Cheviot Estate—</i>				
Lease in perpetuity	118	24,387 2 2	6,424 7 6	29 4 0
Renewable lease .. .. .	..	..	..	..
Village-homestead special settlement ..	92	2,480 1 0	870 10 4	22 2 0
Grazing-farms	49	45,782 0 7	6,840 5 2	271 3 8
Pastoral runs	1	1,642 0 0	193 3 8	..
Miscellaneous	52	1,293 0 24	259 3 3	63 0 0
Totals	312	75,584 3 33	14,587 9 11	385 9 8
<i>Land for Settlements—</i>				
Lease in perpetuity	3,663	676,370 2 18	200,137 12 4	7,131 5 8
Renewable lease	373	155,972 3 7	33,000 7 4	..
Lease in perpetuity (village)	46	438 1 28	333 12 8	3 13 0
Renewable lease (village)	2	9 2 16	8 15 6	..
Special-settlement associations	11	2,114 1 9	162 7 8	..
Small grazing-runs	112	211,004 0 33	26,767 2 4	263 14 8
Pastoral runs	2	953 2 38	121 13 0	..
Miscellaneous	204	6,777 0 2	1,480 6 9	158 7 4
Totals	4,413	1,053,640 2 31	262,011 17 7	7,557 0 8
<i>National Endowment Lands—</i>				
Renewable lease—				
Ordinary	412	128,260 1 1	5,584 17 10	..
Village settlement	70	574 1 33	133 0 6	..
Small grazing runs	423	1,129,732 2 13	20,369 10 1	1,209 16 2
Pastoral runs	221	4,265,916 0 34	36,821 6 0	31 7 6
Pastoral licenses in mining districts under special regulations	124	22,156 1 39	444 17 8	50 14 1
Miscellaneous leases	333	163,001 1 28	1,599 8 7	256 18 9
Totals	1,583	5,709,641 1 28	64,953 0 8	1,548 16 6
Thermal springs (Rotorua)	306	6,057 0 2	2,158 16 4	124 18 0
Grand totals	25,204	18,264,083 2 6	549,530 17 3	13,960 15 0
Endowments (ordinary)	875	400,626 2 11	14,084 5 10	284 7 9
Workers' dwellings—				
Ordinary Crown lands	36	6 0 25.5	*88 19 7	24 9 9
Land for settlements	69	11 1 9.7	*732 5 5	43 12 6

* Monthly rent.

Table 28.—ENDOWMENT LANDS (other than National Endowment) taken up during the Year ended 31st March, 1909.

District.	Nature of Endowments.	Cash Lands.			Occupation with Right of Purchase.			Renewable Lease.			Small Grazing-runs.		
		Number of Purchasers.	Area.	Amount realised.	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.
Auckland ..	Museum ..	..	A. R. P. ..	£ s. d. ..	1	A. R. P. 81 2 20	£ s. d. 2 2 6	..	A. R. P. ..	£ s. d. ..	..	A. R. P. ..	£ s. d. ..
Taranaki ..	University endowment ..	..	..	..	..	..	..	..	..	..	..	..	..
Nelson ..	Westport Harbour Board ..	..	..	..	..	..	..	4	171 1 34	7 16 0	..	..	..
Otago ..	Educational (School Commissioners) ..	12	89 0 27	48 19 0	..	..	..	..	..	..	..	..	..
" ..	University ..	..	..	..	..	..	..	..	..	..	9	29,094 0 0	1,094 7 10
" ..	Clutha River Trust ..	..	..	..	..	..	..	..	..	..	3*	2,400 0 16	66 2 2
Southland ..	Educational ..	34	80 3 17	259 10 8	..	..	..	..	..	..	..	..	..
Totals ..	..	46	170 0 4	308 9 8	1	81 2 20	2 2 6	4	171 1 34	7 16 0	12	31,494 0 16	1,160 10 0

District.	Nature of Endowments.	Mining Districts Land Occupation Leases.			Pastoral Runs.			Miscellaneous Leases.		
		Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.	Number.	Area.	Annual Rental.
Auckland ..	Museum ..	..	A. R. P. ..	£ s. d. ..	..	A. P. P. ..	£ s. d. ..	..	A. R. P. ..	£ s. d. ..
Taranaki ..	University endowment ..	..	..	..	..	..	..	1	10 1 25	0 15 6
Nelson ..	Westport Harbour Board ..	7	61 0 4	10 3 0	..	..	..	30	3,093 2 3	157 10 0
Otago ..	Educational (School Commissioners) ..	..	..	..	..	..	..	..	..	..
" ..	University ..	..	..	..	1	582 0 0	16 19 6	3	52 0 0	2 0 10
" ..	Clutha River Trust ..	..	..	..	1	13,550 0 0	310 0 0	..	..	..
Southland ..	Educational ..	..	..	..	..	..	..	..	..	..
Totals ..	..	7	61 0 4	10 3 0	2	14,132 0 0	326 19 6	34	3,155 3 28	160 6 4

* Renewals of leases.

Table 29.—ENDOWMENTS: RETURN of REVENUE received during the Year ended 31st March, 1909.

Tenure.						Revenue received.		
						£	s.	d.
Cash lands	..	..	..	..	..	360	1	8
Perpetual lease made freehold	..	..	..	..	..	..	..	..
Occupation with right of purchase made freehold	..	..	..	..	..	..	..	..
Deferred payments	..	..	..	..	..	8	3	8
Perpetual lease and small areas	..	..	..	..	..	362	3	9
Occupation with right of purchase	..	..	..	..	..	36	12	6
Lease in perpetuity	..	..	..	..	..	2,027	7	1
Renewable lease	..	..	..	..	..	2	9	0
Mining districts land occupation leases	..	..	..	..	..	87	14	3
Village-homestead special settlement	..	..	..	..	..	255	18	4
Village lease in perpetuity	..	..	..	..	..	18	3	6
Village renewable lease	..	..	..	..	..	..	..	..
Small grazing-runs	..	..	..	..	..	1,766	4	0
Pastoral runs	..	..	..	..	..	5,458	8	4
Coal and mineral leases and royalty	..	..	..	..	..	17,569	16	8
Timber licenses and royalties	..	..	..	..	..	961	18	3
Miscellaneous leases	..	..	..	..	..	372	1	6
Rents of reserves	..	..	..	..	..	1,024	9	6
Miscellaneous receipts	..	..	..	..	..	23	13	0
Total	..	..	..	..	..	£30,335	5	0

Table 30.—SUMMARY of ARREARS due to the CROWN on 31st March, 1909.

Tenure.	Exclusive of Current Half-year's Rent or Instalment.			Inclusive of Current Half-year's Rent or Instalment.		
	Number of Selectors.	Area.	Amount in Arrear.	Number of Selectors.	Area.	Amount in Arrear.
<i>Ordinary Crown Lands—</i>		A. R. P.	£ s. d.		A. R. P.	£ s. d.
Deferred payment	1	213 0 22	4 19 10	3	623 2 22	8 11 9
Perpetual lease	23	3,645 2 33	121 7 0	74	10,453 3 6	285 4 7
Occupation with right of purchase	132	41,928 1 2	960 19 0	619	180,577 1 25	4,438 8 1
Lease in perpetuity	160	39,560 1 32	934 17 4	575	138,501 1 4	3,007 6 9
Mining districts land occupation leases	26	1,376 0 9	153 4 6	78	4,493 2 11	269 11 4
Village settlements, deferred payment	1	5 0 0	0 18 8	4	14 1 5	5 1 11
Village settlements, perpetual lease	2	30 0 14	6 10 0	15	146 3 8	25 6 5
Village settlements, occupation with right of purchase	..	..	..	3	2 1 0	0 13 9
Village settlements, lease in perpetuity	43	1,498 2 5	242 1 10	166	4,981 2 34	726 0 1
Village-homestead special settlements	22	371 2 8	88 9 0	93	1,830 2 20	217 9 10
Special-settlement associations	23	4,145 0 14	132 7 11	62	10,621 3 12	408 4 11
Improved farms	30	3,945 0 23	312 15 11	102	13,167 3 0	867 7 1
Small grazing-runs	20	23,224 0 26	407 15 6	86	151,782 2 25	2,828 3 5
Pastoral runs	4	7,606 0 0	13 11 0	19	85,868 2 9	150 13 9
Pastoral licenses in mining districts under special regulations	12	3,185 0 24	79 9 1	32	9,903 0 24	158 17 11
Miscellaneous (not otherwise specified)	127	14,439 3 27	885 3 7	382	69,741 1 29	2,315 5 0
Totals	626	145,174 0 39	4,844 10 2	2,313	682,710 2 34	15,712 6 7
<i>Cheviot Estate—</i>						
Lease in perpetuity	1	292 0 0	29 4 0	2	301 0 15	60 13 6
Village-homestead special settlement	6	165 2 33	22 2 0	12	222 2 28	60 12 5
Grazing-farms	5	4,167 0 0	271 3 8	36	42,590 0 35	3,374 18 3
Miscellaneous	7	190 3 8	63 0 0	17	595 2 10	115 0 6
Totals	19	4,815 2 1	385 9 8	67	43,709 2 8	3,611 4 8
<i>Land for Settlements—</i>						
Lease in perpetuity	196	39,724 2 1	7,131 5 8	485	89,283 2 10	18,963 11 11
Renewable lease	..	..	..	16	7,743 2 18	1,015 11 2
Village lease in perpetuity	4	6 3 27	3 13 0	4	6 3 27	6 15 0
Small grazing-runs	4	8,494 3 0	263 14 8	15	33,457 0 20	1,392 4 2
Miscellaneous	15	313 3 26	158 7 4	37	1,069 2 9	348 3 8
Totals	219	48,540 0 14	7,557 0 8	557	131,560 3 4	21,726 5 11
<i>National Endowment Lands—</i>						
Renewable lease (ordinary)	..	..	..	24	7,227 0 38	149 6 5
Renewable lease (village settlements)	..	..	..	7	34 3 8	3 15 9
Small grazing-runs	52	134,134 1 12	1,209 16 2	173	474,422 0 21	5,561 12 11
Pastoral runs	4	28,408 0 0	31 7 6	23	276,747 0 0	369 17 1
Pastoral licenses in mining districts under special regulations	9	1,912 0 0	50 14 1	22	4,397 1 37	88 17 0
Miscellaneous	21	4,398 0 36	256 18 9	53	27,300 2 36	494 9 5
Totals	86	168,852 2 8	1,548 16 6	302	790,129 1 20	6,667 18 7
Thermal springs, Rotorua	14	47 3 13	124 18 0	67	904 3 6	352 1 10
Grand totals	964	367,430 0 35	13,960 15 0	3,306	1,649,015 0 32	48,069 17 7
Workers' dwellings (Crown lands)	4	0 3 32	24 9 9	9	2 0 27	42 3 5
Workers' dwellings (land for settlements)	15	2 2 29	43 12 6	26	4 3 10	94 7 3

Table 31.—RETURN showing POSITION and TRANSACTIONS in IMPROVED-FARM SETTLEMENTS from their Commencement to 31st March, 1909.

District.	Total Area made Freehold.					Total Amount received.	Area felled.	Area grassed.	Number of Stock on Allotments.								
	Area.	Total Number of Sections in the Settlements.	Number of Settlers remaining in Occupation on 31st March, 1909.	Number of Persons resident.	Area occupied.												
										Number.	A.	R.	P.	£	s.	d.	Acres.
Auckland ..	Acres.	111	51	191	5,971	2	29	2	242	0	3	181	10	0	1,843	2,759	2,011
Hawke's Bay ..	2,025	17	16	64	1,830	0	0	1	86	0	0	272	17	3	1,829	1,829	..
Taranaki ..	42,127	356	250	872	32,732	2	7	..	..	..	..	..	..	..	15,803	17,463	10,222
Wellington ..	32,572	273	233	811	27,859	3	34	34	2,528	1	14	3,433	4	0	19,228	19,943	26,734
Southland ..	4,862	57	45	..	4,732	1	16	..	..	..	..	..	..	..	2,945	2,844	1,394
Totals ..	98,690	814	595	1,938	73,126	2	6	37	2,856	1	17	3,897	11	3	41,648	44,888	40,361

District.	Amount paid to Selectors for Improvements.					Rent and Interest paid by Selectors.		Value of Improvements now on the Land, including those paid for by Government.										
	Past Transactions.		During Year.			Total Payments.			During the Year ended 31st March, 1909.		From Commencement of System.							
	For Houses.	For Bushfelling and other Works.	For Houses.	For Bushfelling and other Works.	For Houses and other Works.	£	s.	d.	£	s.	d.	£	s.	d.				
Auckland ..	£	£	£	£	£	7,847	17	11	661	13	4	£	3,483	13	5	16,969	0	0
Hawke's Bay ..	1,457	5	0	6,101	2	0	..	289	10	11	..	248	13	11	..	8,141	12	9
Taranaki ..	159	14	4	1,860	9	5	..	..	..	..	..	2,020	3	9	..	2,936	5	4
Wellington ..	3,575	10	0	19,069	0	8	280	0	0	1,991	3	0	24,915	13	8	12,360	10	0
Southland ..	3,090	15	0	14,367	2	0	..	..	..	..	..	17,457	17	0	..	21,272	4	3
	902	1	0	11,155	14	2	..	..	..	..	..	12,057	15	2	..	2,385	4	3
Totals ..	9,185	5	4	52,553	8	3	280	0	0	2,280	13	11	64,299	7	6	5,329	16	0
																42,437	17	3
																186,897	4	5

Table 33.—COMPARATIVE STATEMENT of SELECTORS and LANDS SELECTED under SETTLEMENT CONDITIONS for the Ten Years ended 31st March, 1909.

ending 31st March,	Cash.		Perpetual Lease.		Lease in Perpetuity.		Renewable Lease.		Occupation with Right of Purchase.		Agricultural Lease.		Mining Dis- tricts Land Occupation Leases.		Village Settlement: Cash.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
1900*	491	Acres. 23,936	2	Acres. 624	656	153,531	..	Acres. ..	395	Acres. 117,771	3	Acres. 70	64	Acres. 2,295	6	Acres. 4
1901*	362	58,703	3	2,499	489	144,205	..	..	673	262,729	1	23	53	2,123	35	22
1902*	489	27,290	1	10	501	116,125	..	..	447	128,893	1	28	71	2,507	21	10
1903*	374	17,194	..	..	573	161,745	..	..	403	118,557	3	36	52	2,434	19	9
1904*	435	22,481	..	..	894	194,515	..	..	402	146,953	2	13	97	4,972	10	8
1905*	371	18,990	..	..	751	173,811	..	..	330	138,206	3	218	40	1,914	2	1
1906*	229	11,132	1	127	706	158,018½	..	..	388	157,432½	..	..	30	1,194	39	40
1907*	447	20,357	..	..	597	154,237	..	..	412	215,530	..	..	26	1,044	15	20
1908*	404	28,519	..	..	427	98,367	168	70,535	354	187,799	3	84	73	3,047	3	3
1909*†	371	42,177	..	..	193	106,184	692	218,005	382	123,116	..	..	36	1,490	11	17

Year ending 31st March,	Village Settlement: Occupation with Right of Purchase.		Village Settlement: Lease in Perpetuity.		Village Settlement: Renewable Lease.		Village- homestead Special Settlement.		Special- settlement Associations.		Improved Farms.		Small Grazing-runs and Grazing-farms.		Totals.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
1900*	3	Acres. 2	80	Acres. 1,762	..	Acres. ..	6	Acres. 31	1	Acres. 2	41	Acres. 7,393	64	Acres. 155,109	1,812	Acres. 462,530
1901*	..	2	96	1,082	..	..	7	376	..	..	13	1,936	35	86,076	1,767	559,774
1902*	1	..	33	456	..	..	30	469	..	..	..	1,618	36	112,947	1,632	390,406½
1903*	..	1	40	619	..	..	34	1,512	29	5,761	30	4,032	45	113,925	1,602	425,824
1904*	1	..	21	514	..	..	23	272	4	729	106	19,436	58	144,786	2,053	534,679
1905*	1	0½	14	208	..	..	8	111	2	223	14	1,459	45	67,271	1,581	402,412
1906*	2	0¼	55	1,936	..	..	49	287	..	..	3	547	34	68,587	1,536	399,342
1907*	..	41	32	1,012	..	..	17	173	1	4	46	5,622	51	114,854	1,644	512,853
1908*	3	3	72	2,302	15	108	..	..	..	..	3	410	64	226,757	1,589	617,934
1909*†	..	..	..	..	168	1,167	..	..	..	..	..	..	10	28,989	1,863	521,145

* Inclusive of Cheviot Estate, and lands disposed of under the Land for Settlements Acts.
 † Includes 1 selector—area 52 acres—deferred payment.

† National endowment lands.

Table 34.—TRANSACTIONS in BUSH, SWAMP, and SCRUB LANDS, under Section 127 of "The Land Act, 1908," during the Year ended 31st March, 1909.

District.	Heavy-bush Land.					Light-bush Land.					Swamp Land.					Totals.				
	Area opened during Year.			Selections during Year.		Area opened during Year.			Selections during Year.		Area opened during Year.			Selections during Year.		Total Selections during Year.				
	A.	R. P.	No.	Area.	Amount of Rental remitted per Annum.	A.	R. P.	No.	Area.	Amount of Rental remitted per Annum.	A.	R. P.	No.	Area.	Amount of Rental remitted per Annum.	A.	R. P.	No.	Area.	Amount of Rental remitted per Annum.
Auckland
Hawke's Bay
Taranaki
Wellington
Nelson
Marlborough
Westland
Canterbury
Otago
Southland
Totals

TOTAL AREA held at 31st March, 1909.

District.	Heavy-bush Land.				Light-bush Land.				Scrub Land.				Swamp Land.				Totals.														
	No. of Selectors.	Area held.	Annual Rental (remitted).	No. of Selectors.	A.	R. P.	£ s. d.	No. of Selectors.	Area held.	Annual Rental (remitted).	No. of Selectors.	A.	R. P.	£ s. d.	No. of Selectors.	Area held.	Annual Rental (remitted).	No. of Selectors.	Area held.	Annual Rental (remitted).	No. of Selectors.	Area held.	Annual Rental (remitted).	No. of Selectors.	Area held.	Annual Rental (remitted).	No. of Selectors.				
Auckland	293	146,148	2 35	21	7,363	2 20	£ 213 10 4	32	9,755	1 4	£ 264 2 5	4	520	1 14	£ 17 19 0	350	163,787	3 33	7,146	9 11	7	8,564	0 0	4,885	11 10	2,591	12 10	2,913	14 4	48	15 2
Hawke's Bay	7	8,564	0 0	..	..	..	£ 271 19 2	..	1,779	0 0	£ 58 8 4	..	..	..	..	7	8,564	0 0	271	19 2	..	..	..	..	..	..	..	..	..	..	..
Taranaki	149	129,322	3 9	21	12,687	1 37	£ 485 14 0	3	1,779	0 0	£ 58 8 4	..	..	..	..	173	143,789	1 6	4,885	11 10	35	39,185	1 37	2,591	12 10	2,913	14 4	48	15 2	..	..
Wellington	35	39,185	1 37	..	..	..	£ 259 12 10	..	..	..	£ 49 2 6	..	1,255	0 9	£ 21 16 10	319	154,993	3 13	2,913	14 4	6	72 8 2	0 0	..	..	..	..	..	..	..	..
Nelson	274	139,760	2 28	30	10,608	1 28	£ 167 2 0	7	3,369	2 28	£ 49 2 6	8	1,255	0 9	£ 21 16 10	319	154,993	3 13	2,913	14 4	6	72 8 2	0 0	..	..	..	..	..	..	..	..
Marlborough	6	3,637	0 0	..	..	..	£ 72 8 2	..	..	..	£ 49 2 6	..	1,255	0 9	£ 21 16 10	319	154,993	3 13	2,913	14 4	6	72 8 2	0 0	..	..	..	..	..	..	..	..
Westland	67	15,501	0 14	27	8,950	2 27	£ 125 4 8	10	2,872	3 27	£ 47 4 4	5	1,557	1 4	£ 24 9 4	109	28,881	3 32	448	15 2	..	..	..	..	..	..	..	..	..	..	..
Canterbury	..	..	..	..	..	..	£ 125 4 8	..	..	..	£ 47 4 4	..	1,557	1 4	£ 24 9 4	109	28,881	3 32	448	15 2	..	..	..	..	..	..	..	..	..	..	..
Otago	4	629	0 10	3	398	3 28	£ 5 18 6	..	..	..	£ 47 4 4	..	1,557	1 4	£ 24 9 4	109	28,881	3 32	448	15 2	..	..	..	..	..	..	..	..	..	..	..
Southland	13	3,831	3 0	26	5,118	2 38	£ 107 18 0	7	2,882	2 2	£ 39 3 10	5	481	2 38	£ 8 1 3	51	12,314	2 38	225	15 1	..	..	..	..	..	..	..	..	..	..	..
Totals	848	486,580	2 13	128	45,127	3 18	£ 1,105 7 6	59	20,659	1 21	£ 458 1 5	23	3,891	2 17	£ 73 3 11	1,058	556,259	1 29	18,574	19 3	..	..	..	..	..	..	..	..	..	..	..

Table 35.—REBATES of RENT granted under Section 116 of “The Land Act, 1908,” and Section 55 of “The Land for Settlements Act, 1903,” during the Year ended 31st March, 1909.

Land District.					Number of Tenants who have been granted Rebate.	Area held.			Amount of Rebate granted.		
						A.	B.	P.	£	s.	d.
<i>Ordinary Crown Lands—</i>											
Auckland ..	..	..	..	..	2,573	692,159	0	0	1,762	3	9
Hawke's Bay ..	..	..	..	..	479	225,681	0	27	1,126	13	2
Taranaki ..	..	..	..	..	904	277,588	1	1	1,134	13	4
Wellington ..	..	..	..	..	2,143	406,706	0	0	2,279	11	10
Nelson ..	..	..	..	..	204	61,114	2	16	50	3	9
Marlborough ..	..	..	..	..	319	144,498	1	24	342	10	7
Westland ..	..	..	..	..	581	81,803	0	16	125	17	9
Canterbury ..	..	..	..	..	463	85,642	2	23	478	8	1
Otago ..	..	..	..	..	1,102	289,834	2	4	643	14	7
Southland ..	..	..	..	..	715	120,525	0	0	300	18	3
Totals ..	..	..	..	..	9,483	2,385,552	2	31	8,244	15	1
<i>Cheviot Estate—</i>											
Canterbury ..	..	..	..	..	191	25,228	0	18	705	6	5
<i>Land for Settlements—</i>											
Auckland ..	..	..	..	..	522	124,875	0	0	1,457	12	5
Hawke's Bay ..	..	..	..	..	498	153,714	2	24	4,296	6	7
Taranaki ..	..	..	..	..	31	3,487	1	14	270	5	6
Wellington ..	..	..	..	..	278	43,938	1	26	1,033	16	0
Nelson ..	..	..	..	..	21	11,120	0	9	69	9	3
Marlborough ..	..	..	..	..	308	100,846	1	27	1,825	4	5
Westland ..	..	..	..	..	43	7,333	2	13	39	7	1
Canterbury ..	..	..	..	..	1,149	250,800	0	17	6,621	9	2
Otago ..	..	..	..	..	601	176,238	0	23	3,532	13	1
Southland ..	..	..	..	..	180	36,895	0	0	735	12	10
Totals ..	..	..	..	..	3,631	909,248	2	33	19,881	16	4
<i>National Endowment—</i>											
Auckland ..	..	..	..	..	14	6,167	0	0	11	17	4
Taranaki ..	..	..	..	..	11	9,117	0	0	29	13	10
Wellington ..	..	..	..	..	3	254	0	8	0	13	6
Marlborough ..	..	..	..	..	25	423	0	5	1	19	10
Westland ..	..	..	..	..	39	3,084	3	30	4	8	9
Otago ..	..	..	..	..	9	837	3	11	0	19	9
Southland ..	..	..	..	..	8	729	0	0	1	5	1
Totals ..	..	..	..	..	109	20,612	3	14	50	18	1
Grand totals ..	..	..	..	..	13,414	3,340,642	1	16	28,882	15	11

Table 36.—CROWN LANDS PROCLAIMED under the Local Bodies' Loans Acts, the AMOUNT BORROWED, and the AMOUNT REPAYED to the Public Account up to 31st March, 1909.

Land District.					Area.	Amount borrowed.			Amount repaid.		
					Acres.	£	s.	d.	£	s.	d.
Auckland ..	..	..	..	..	1,004,672	186,886	0	0	53,758	5	5
Hawke's Bay ..	..	..	..	..	344,940	65,210	0	0	22,337	1	10
Taranaki ..	..	..	..	..	556,517	136,531	0	0	65,116	4	3
Wellington ..	..	..	..	..	651,314	175,138	0	0	108,894	14	10
Nelson ..	..	..	..	..	353,122	37,868	0	0	1,889	16	3
Marlborough ..	..	..	..	..	173,669	21,979	0	0	16,250	12	9
Westland ..	..	..	..	..	21,091	2,801	0	0	730	12	11
Canterbury ..	..	..	..	..	2,135	456	0	0	518	2	1
Otago ..	..	..	..	..	176,086	21,539	0	0	22,948	6	1
Southland ..	..	..	..	..	118,020	25,832	0	0	12,297	0	3
Totals ..	..	..	..	..	3,401,566	674,240	0	0	304,740	16	8

Table 37.—STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," and the Report of the Surveyor-General on the Value of such Blocks, and on the Necessary Works, and the Estimated Cost of the Works, and on the Moneys expended in respect of such Blocks out of Moneys borrowed under the said Act.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.

AUCKLAND LAND DISTRICT.										
	Acres.				£		£	£ s. d.	£ s. d.	
Ahuroa	5,049	23	479	18 Mar., 1892	2,184	Road-works	500	497	..	497 2 5
Akaaka Swamp	2,935	72	1273	15 Sept., 1892	2,093	Drainage ..	920	917	..	916 12 1
Auckland Special Settlement	8,995	78	1665	24 Oct., 1895	3,698	Road-works	899	898	..	898 0 1
Avoca	3,668	24	482	29 Mar., 1894	1,834	"	458	458	..	458 0 0
Awakino	1,210	97	2995	22 Nov., 1906	985	"	482	301	165 13 4	466 4 2
Awaroa No. 2	3,767	20	495	24 Mar., 1898	2,185	"	400	400	..	400 0 0
Hauturu	63,186	31	750	28 Mar., 1901	29,585	"	10,469	10,278	..	10,278 1 8
Huehue	4,134	59	1620	23 July, 1903	2,911	"	827	827	..	827 0 0
Kaikokopu	7,397	16	435	23 Feb., 1899	2,774	"	739	739	..	738 18 2
Kaimango	600	19	837	12 Mar., 1908	600	"	210	..	7 8 5	7 8 5
Kaimarama	3,179	71	1372	21 Sept., 1893	1,431	"	447	318	129 0 0	447 0 0
Kakepuku	2,732	33	1,099	21 April, 1904	3,074	Roads and drains	683	..	649 2 1	649 2 1
Karioi-Alexandra	12,912	10	(269) (270)	13 Feb., 1896	4,837	Road-works	1,662	1,662	..	1,661 14 6
Karioi Parish	550	20	495	24 Mar., 1898	206	"	55	55	..	55 0 0
Kauaeranga	3,556	91	2021	20 Dec., 1898	1,770	"	445	445	..	444 18 3
Kawaka	3,420	34	1152	28 April, 1904	1,332	"	684	684	..	683 17 3
Kawhia	4,927	70	1498	22 Sept., 1898	2,819	"	616	616	..	615 18 1
Kenana	773	50	1755	22 June, 1906	425	"	155	110	7 5 2	117 6 2
Ketetangariki	1,070	16	529	23 Feb., 1905	663	"	263	268	..	268 0 0
Kinohaku West	60,311	100	2198	1 Dec., 1899	51,306	"	14,990	13,877	1,112 18 4	14,990 0 0
Kinohaku West No. 2	23,004	72	1572	1 Aug., 1901	7,589	"	5,753	5,676	77 1 8	5,753 2 6
Kiokio	4,349	66	1726	21 Aug., 1902	3,812	"	545	545	..	545 0 0
Kohumaru	3,993	83	1846	17 Nov., 1894	3,299	"	1,430	200	387 8 6	587 5 7
Kopua	4,263	73	2109	1 Sept., 1908	2,264	"	894	894	..	894 0 0
Kowaunui	3,464	63	2034	26 July, 1906	1,595	"	520	516	4 0 0	519 18 1
Mahoenui	6,471	73	1602	8 Aug., 1901	5,366	"	990	990	..	989 19 5
Maioiro Swamp	722	80	1365	13 Oct., 1892	425	Drainage ..	225	225	..	225 0 0
Maire	2,659	81	2343	6 Oct., 1904	931	Road-works	399	397	..	397 6 0
Mamaku	7,684	24	564	7 April, 1898	3,842	"	700	700	..	700 0 0
Manawahe	43,248	83	2221	14 Sept., 1905	25,909	"	6,190	3,014	897 7 0	3,911 12 7
Mangakahia	10,190	20	495	24 Mar., 1898	4,548	"	2,000	1,470	281 15 3	1,751 9 4
Mangakahia No. 2	1,109	91	2032	2 Nov., 1899	671	"	111	111	..	111 0 0
Mangamahoe	344	56	1447	15 June, 1905	356	"	112	..	..	..
Manganuiowae	4,599	23	479	18 Mar., 1892	1,745	"	500	500	..	500 0 0
Mangaokahu	3,525	54	1047	6 July, 1892	1,743	"	424	232	..	232 0 0
Mangapu	1,203	11	558	13 Feb., 1908	1,733	"	601	..	601 0 0	601 0 0
Mangawhara	9,669	73	2109	1 Sept., 1904	6,073	"	2,416	2,264	151 18 11	2,415 19 5
Mangorewa-Kaharoa	23,987	91	2032	2 Nov., 1899	9,997	"	3,552	2,800	..	2,800 0 0
Mareikura No. 1	950	77	1716	27 Oct., 1898	493	"	120	120	..	120 0 0
Mareikura No. 2	584	79	1773	3 Nov., 1898	292	"	70	70	..	70 0 0
Mareretu	5,060	23	479	18 Mar., 1892	1,976	"	395	395	..	395 0 0
Marlborough	4,670	46	939	21 June, 1894	2,043	"	467	467	..	467 0 0
Maropiu	5,343	24	667	11 Mar., 1897	2,712	"	656	653	..	653 9 10
Maukoro	9,978	54	1517	2 July, 1903	5,729	"	1,496	1,496	..	1,495 19 7
Maungaru	4,368	20	494	24 Mar., 1898	2,184	"	460	460	..	460 0 0
Maungataniwha	4,000	23	479	18 Mar., 1892	1,500	"	500	499	..	499 1 6
Maungataniwha No. 2	1,220	47	955	18 June, 1896	487	"	120	120	..	119 19 9
Maungataniwha No. 3	470	84	2270	21 Sept., 1905	235	"	94	93	..	93 7 2
Moeatoa	2,930	68	1959	18 Aug., 1904	2,322	"	733	707	25 14 10	733 0 0
Motatau	5,803	23	479	18 Mar., 1892	2,349	"	600	599	..	598 10 7
Ngarua	3,461	97	2879	8 Dec., 1904	2,153	"	849	849	..	848 19 11
Ngunguru	6,216	46	973	20 June, 1895	3,417	"	772	772	..	772 0 0
Ngutunui	1,657	54	1518	2 July, 1903	1,053	"	210	99	110 15 4	210 0 0
Oamaru No. 1	15,027	17	648	1 Mar., 1906	9,821	"	3,734	2,509	1,210 11 7	3,719 3 6
Oamaru No. 2	3,243	49	1735	6 June, 1907	2,587	"	1,293	91	837 4 6	927 19 3
Oamaru No. 3	17,000	70	2,402	10 Sept., 1908	12,750	"	4,250	..	6 17 5	6 17 5
Okohiriki	13,277	91	2021	20 Dec., 1898	5,094	"	1,550	1,547	..	1,547 8 1
Okohiriki No. 1E	2,626	70	1858	4 Sept., 1902	1,050	"	260	259	..	259 2 3
Omanawa	3,380	90	2694	10 Nov., 1904	2,047	"	845	844	..	844 0 0
Omawhake	5,094	75	2154	8 Sept., 1904	2,135	"	637	..	..	..
Opanake	2,508	24	563	7 April, 1898	1,254	"	100	99	..	99 1 0
Opouteke	12,240	1	29	8 Jan., 1903	7,991	"	3,248	298	1,190 4 4	1,488 12 7
Opuatea No. 1	5,720	25	923	5 April, 1906	2,288	"	858	858	..	858 0 0
Opuatea No. 2	8,030	9	254	2 Feb., 1899	2,735	"	1,000	1,000	..	1,000 0 0
Opuatea No. 3	4,337	83	1847	17 Nov., 1898	1,976	"	600	600	..	600 0 0
Opuawhanga No. 1	4,815	83	1846	17 Nov., 1898	1,917	"	500	500	..	500 0 0
Opuawhanga-Whangarei No. 1	5,140	23	412	30 Mar., 1893	2,300	"	500	500	..	500 0 0
Otaenga	1,630	77	2114	1 Oct., 1903	1,019	"	326	..	..	..
Otanake Special Settlement	7,253	34	571	1 May, 1893	5,440	"	1,813	1,161	244 3 9	1,405 10
Otau	18,510	16	528	23 Feb., 1905	232	"	2,350	2,350	..	2,350 0
Otepo	463	61	2343	6 Oct., 1904	1,019	"	115	..	..	..
Carried forward	535,857	..	..	..	297,183	..	94,792	73,899	8,097 10 5	81,996 11 6

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c.
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.
AUCKLAND LAND DISTRICT—continued.										
	Acres.				£		£	£	£ s. d.	£ s. d.
Brought forward	535,857	..	..	..	297,183	..	94,792	73,899	8,097 10 5	81,996 11 6
Oue	6,248	78	2609	15 Oct., 1908	3,820	Road-works	1,685	..	..	..
Otukai	8,946	83	1845	17 Nov., 1898	..	..	..	..	..	..
		70	1856	4 Sept., 1902	5,014	"	1,059	696	300 1 11	996 5 10
Oumauku	9,770	77	2114	1 Oct., 1903	2,931	"	1,465	1,463	..	1,463 6 0
Ouruwhero	2,615	49	1433	25 June, 1903	2,347	"	680	680	..	679 15 7
Owai	3,378	73	1602	8 Aug., 1901	1,008	"	340	340	..	340 0 0
Paekotare	752	20	494	24 Mar., 1898	296	"	80	76	..	75 14 6
Pakanae	992	73	1601	8 Aug., 1901	291	"	124	112	11 12 5	123 19 2
Pakeho	9,613	91	2032	2 Nov., 1899	5,720	"	1,800	1,800	..	1,799 18 9
Pakiri	4,125	85	2335	5 Nov., 1903	1,607	"	369	369	..	369 0 0
Papakauri	2,025	81	2658	22 Oct., 1908	2,119	Roads and bridges	506	..	..	..
Papamoa No. 2	1,443	7	273	1 Feb., 1906	719	Road-works	180	177	..	177 5 1
Parahaki	1,933	73	1601	8 Aug., 1901	568	"	193	11	..	10 15 0
Pareokawa	7,645	96	2148	7 Nov., 1901	3,557	"	950	944	1 15 0	946 3 7
Pirongia West	16,960	14	361	15 Feb., 1900	10,874	"	2,121	2,118	..	2,118 0 9
Pukemiro	1,111	68	1959	18 Aug., 1904	450	"	167	..	..	..
Pukenui	1,600	77	2113	1 Oct., 1903	1,200	"	240	240	..	239 19 4
Puketarata	5,347	1	1	4 Jan., 1900	2,177	"	535	533	..	532 11 7
Puketarata No. 2	3,027	104	2261	14 Dec., 1899	1,487	"	378	378	..	377 19 4
Puketarata No. 3	2,370	65	1702	14 Aug., 1902	2,371	"	296	296	..	295 19 4
Puketiti	603	17	680	1 Mar., 1906	737	"	151	..	151 0 0	151 0 0
Puriri	1,856	91	2022	20 Dec., 1898	791	"	186	185	..	185 6 0
Raetea	686	5	152	21 Jan., 1904	349	"	137	6	130 10 2	136 5 1
Rotokakahi	4,022	99	2638	16 Nov., 1905	3,571	"	1,207	517	129 15 5	646 11 2
Roto Ngaro	14,841	112	2949	21 Dec., 1905	4,655	"	2,225	198	181 14 9	379 5 1
Ruaoterei	570	78	2609	15 Oct., 1908	428	"	142	..	8 7 6	8 7 6
Ruaapeka	10,355	77	1345	6 Oct., 1892	3,982	"	500	495	..	494 13 4
Taeore	340	55	1428	8 June, 1905	136	"	68	..	..	..
Tahora No. 2 North	18378 of 62,699	24	522	28 Feb., 1901	15,052	"	5,190	517	1,943 16 7	2,460 16 10
Takahue	1,993	23	479	18 Mar., 1892	946	"	300	300	..	300 0 0
Takahue and Whangape	12,200	89	1864	5 Dec., 1895	4,270	"	1,800	1,800	..	1,800 0 0
Tangihua	4,660	104	2261	14 Dec., 1899	2,106	"	466	466	..	466 0 0
Tauhoa	4,069	15	336	18 Feb., 1892	1,675	"	449	449	..	449 0 0
Tauhoa-Komokoriki	2,585	35	573	4 May, 1893	949	"	325	325	..	325 0 0
Taumata	3,423	20	495	24 Mar., 1898	2,188	"	428	428	..	428 0 0
Taumata-Whakauma	3,269	62	1727	6 Aug., 1903	2,100	"	817	815	..	815 6 2
Taupiri	7,442	45	860	8 June, 1893	3,755	"	920	920	..	919 18 10
Te Akau	13,436	45	1626	11 June, 1908	25,696	Roads and bridges	6,382	..	1,615 13 4	1,615 13 4
Te Kauri	3,570	14	544	18 Feb., 1904	2,616	Ditto	916	916	..	916 0 0
Te Kuiti	3,506	70	1498	25 July, 1901	2,927	Road-works	777	776	..	776 7 0
Te Pahu	3,228	3	80	18 Jan., 1906	1,711	"	491	481	9 3 8	489 18 0
Te Pahi	4,505	73	2109	1 Sept., 1904	4,352	"	1,689	1,464	221 19 6	1,686 2 8
Te Puroa	8,042	83	1846	17 Nov., 1898	3,033	"	1,076	1,000	..	1,000 0 0
Te Rerenga	7,991	97	2880	8 Dec., 1904	4,730	"	1,599	1,599	..	1,598 13 9
Tokatoka	11,653	38	911	26 May, 1898	20,712	Drains and roads	..	..	..	..
Tokatoka	4,090 of 11,653	38	911	26 May, 1898	10,226	Tramway and road-works	10,765	10,273	302 17 6	10,575 16 2
Tokatoka	125 of 11,653	38	911	26 May, 1898	1,250	Roads and drains	..	..	..	..
Tokatoka No. 2	1,733	73	1601	8 Aug., 1901	3,934	Road-works	1,474	1,474	..	1,473 19 4
Tokatoka No. 3	448	14	544	18 Feb., 1904	896	Roads and drains	448	448	..	448 0 0
Tumu-Kaituna	3,187	12	495	19 Feb., 1903	2,550	Drainage-works and bridges over drains	1,275	1,274	..	1,274 7 7
Turoto	1,783	97	2879	8 Dec., 1904	1,689	Road-works	539	206	332 11 6	539 0 0
Umurua	4,866	24	564	7 April, 1898	2,433	"	480	479	..	478 14 11
Waiawa	16,870	5	94	27 Jan., 1896	8,439	"	3,268	2,500	343 5 5	2,843 4 5
Waiharakeke	2,116	27	758	23 Mar., 1905	1,979	"	318	318	..	317 19 7
Waimana	14,292	46	973	20 June, 1895	5,402	"	2,000	2,000	..	2,000 0 0
Waimatanui	15,723	20	496	24 Mar., 1898	10,847	"	4,258	3,622	631 8 5	4,253 13 8
Waiotahi	6,050	71	2073	25 Aug., 1904	2,273	"	756	751	..	750 13 8
Waiotira	3,226	62	1214	10 Aug., 1893	1,613	"	322	162	150 5 10	312 2 0
Waipoua	58,200	74	1419	5 Oct., 1893	29,100	"	5,800	5,799	..	5,799 5 0
Waipu	6,257	65	1398	1 Sept., 1898	1,570	"	790	790	..	790 0 0
Wairere	1,930	79	2299	29 Sept., 1904	1,641	"	483	480	3 0 6	483 0 0
Waitoa	5,108	75	2287	30 Aug., 1906	9,332	"	3,830	..	854 16 7	854 16 7
Waoku	20,000	74	1298	22 Sept., 1892	10,000	"	2,000	..	..	..
Whangaingatakupu	2,543	17	301	9 Mar., 1893	1,462	"	395	2,310	84 13 9	2,394 17 11
Whareorino	975	73	1602	8 Aug., 1901	439	"	170	170	..	169 18 4
Whareorino	16,600	73	1602	8 Aug., 1901	14,525	"	3,075	1,796	1,050 11 6	2,846 16 0
Wharepuhunga	31,700	18	335	7 Feb., 1901	8,907	"	2,828	1,063	1,021 19 4	2,085 2 11
Whatitiri No. 1	5,628	51	1113	14 June, 1900	4,830	"	844	843	..	843 6 2
Whitikau	12,457	49	1736	6 June, 1907	10,859	"	4,567	..	841 10 8	841 10 8
Totals	100,467.2	..	..	..	605,402	..	186,886	134,547	18,420 1 8	152,967 16 0

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c.
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.
TARANAKI LAND DISTRICT.										
	Acres.				£		£	£	£ s. d.	£ s. d.
Aorangi	3,842	75	2153	8 Sept., 1904	2,519	Road-works	1,160	1,037	107 19 7	1,144 16 5
Aria	39	93	3006	26 Nov., 1908	532	"	265	..	..	..
Autawa	4,725	21	393	23 Mar., 1893	4,276	"	1,153	1,153	..	1,153 0 0
Eao	17,218	77	2191	2 Oct., 1902	13,890	"	6,361	6,341	20 1 11	6,361 0 0
Egmont, Block VI ..	1,683	57	1163	26 July, 1894	1,721	"	421	421	..	421 0 0
Eltham	3,200	19	340	16 Mar., 1893	3,150	"	800	800	..	800 0 0
Gatton	3,800	19	340	16 Mar., 1893	3,860	"	950	950	..	950 0 0
Huiroa	6,433	72	1273	15 Sept., 1892	5,318	"	2,093	2,093	..	2,093 0 0
Hurimoana	3,190	79	1774	3 Nov., 1898	2,981	"	797	797	..	797 0 0
Kaimanuka	9,987	72	1273	15 Sept., 1892	5,350	"	2,665	2,665	..	2,665 0 0
Kaipikari	4,273	79	1775	3 Nov., 1898	2,136	"	582	582	..	582 0 0
Kaitangiwhenua No. 2	33,430	27	510	5 April, 1894	15,667	"	6,393	6,393	..	6,393 0 0
Kaitangiwhenua Special Settlement	7,747	1	4	7 Jan., 1904	4,209	"	1,491	1,452	38 11 8	1,491 0 0
Kaupokonui	230	62	1215	10 Aug., 1893	230	"	58	58	..	58 0 0
Kohuratahi	3,548	79	1774	3 Nov., 1898	3,019	"	738	738	..	738 0 0
Kuraiti	4,465	14	360	15 Feb., 1900	1,855	"	617	617	..	617 0 0
Kuri	13,989	75	2153	8 Sept., 1904	4,921	"	1,985	1,984	..	1,984 2 0
Kururau	11,808	86	2323	28 Sept., 1905	7,568	"	3,490	3,444	45 1 1	3,489 6 10
Lepperton	2,775	83	1383	20 Oct., 1892	2,998	"	966	966	..	966 0 0
Llewellyn	4,594	15	397	9 Mar., 1896	3,445	"	862	862	..	862 0 0
Maben	4,630	65	1871	4 Aug., 1904	2,341	"	900	900	..	900 0 0
Makahu	6,551	66	1361	27 Aug., 1896	6,180	"	1,468	1,468	..	1,468 0 0
Makino	8,608	24	521	28 Feb., 1901	3,787	"	1,860	1,327	1 1	1,521 2 8
Mangaehu	492	72	1273	15 Sept., 1892	604	"	301	301	..	301 0 0
Mangaere	7,432	30	526	27 April, 1893	9,485	"	4,144	4,144	..	4,144 0 0
Mangamingi	6,629	15	336	18 Feb., 1892	9,040	"	4,286	4,286	..	4,286 0 0
Manganui-Egmont ..	2,833	72	1510	4 Oct., 1894	3,597	"	894	894	..	894 0 0
Mangaowata	10,501	77	2191	2 Oct., 1902	6,577	"	2,140	2,116	23 17 2	2,140 0 0
Mangaroa	4,969	77	2192	2 Oct., 1902	4,560	Roads and bridges	1,225	1,211	13 19 10	1,225 0 0
Mangatawa	6,804	2	3	9 Jan., 1902	3,796	Road-works	1,270	1,270	..	1,269 19 8
Marco	6,463	13	382	16 Feb., 1899	4,038	"	1,027	1,027	..	1,027 0 0
Mataro	1,486	42	953	18 May, 1899	668	"	260	260	..	260 0 0
Mauku	1,893	91	2031	2 Nov., 1899	1,136	"	284	284	..	284 0 0
Milsom	6,681	21	374	23 Mar., 1893	6,232	"	1,750	1,750	..	1,750 0 0
Mohakatino	4,600	42	1513	28 May, 1908	3,475	"	1,700	..	..	..
Mokau-Ohura	41,475	30	1007	14 April, 1904	27,175	"	12,595	12,591	3 10 9	12,595 0 0
Moki	8,734	99	2178	6 Dec., 1900	4,708	"	1,822	1,822	..	1,822 0 0
Ngatimaru, Blocks V, IX	4,565	23	412	30 Mar., 1893	4,745	"	1,940	1,940	..	1,940 0 0
Okoke	13,893	51	1049	5 July, 1894	9,275	"	2,369	2,367	..	2,366 11 1
Opaku-Kapara	17,496	4	26	12 Jan., 1893	6,996	"	2,793	2,793	..	2,793 0 0
Otunui	14,747	19	838	12 Mar., 1908	14,573	Roads and bridge	6,970	..	2,473 6 11	2,473 6 11
Oxford	4,000	4	23	12 Jan., 1893	3,550	Road-works	1,200	1,200	..	1,200 0 0
Patua	9,692	24	667	11 Mar., 1897	6,542	"	1,636	1,636	..	1,635 19 10
Patupuremu	17,966	77	2190-1	2 Oct., 1902	8,160	"	3,580	3,580	..	3,580 0 0
Piko	10,276	43	1009	25 May, 1899	6,928	"	1,784	1,782	..	1,782 7 9
Poarangi	3,835	14	361	15 Feb., 1900	2,419	"	550	550	..	550 0 0
Puniwhakau	10,641	19	340	16 Mar., 1893	7,615	"	1,926	1,926	..	1,926 0 0
Putiki	6,595	64	1358	27 July, 1899	3,620	"	1,144	1,143	..	1,143 7 2
Putikituna	4,229	14	360	15 Feb., 1900	2,664	"	789	789	..	789 0 0
Rangiwakaoma	9,974	72	1501	4 Oct., 1894	3,823	"	1,421	1,421	..	1,421 0 0
Rawhitiroa	736 of 32,746	1	5	7 Jan., 1897	3,680	"	46	4	..	3 11 11
Rerekapa-Moanatairi	21,375	77	2189	2 Oct., 1902	12,182	Roads and bridges	5,835	5,710	124 19 10	5,834 19 10
Rimuputa	5,609	77	1715	27 Oct., 1898	3,229	Road-works	799	799	..	799 0 0
Ross	1,912	34	760	9 May, 1895	2,564	"	478	476	..	476 2 6
Tahora	2,311	90	1977	17 Oct., 1901	1,422	"	471	471	..	471 0 0
Tangitu	11,805	90	1977	17 Oct., 1901	7,463	"	2,140	2,140	..	2,140 0 0
Tanner	5,200	78	1361	10 Oct., 1892	5,950	"	1,780	1,780	..	1,780 0 0
Taumata	8,223	84	2261	21 Sept., 1905	3,812	"	1,616	992	623 13 4	1,615 19 4
Taurangi	21,500	77	2191	2 Oct., 1902	12,976	{ Roads and bridges }	5,865	5,864	..	5,863 15 10
Terrace End	10,393	60	1245	15 Aug., 1895	8,739	Road-works	2,173	2,173	..	2,173 0 0
Tirangi	8,098	77	2192	2 Oct., 1902	3,563	"	1,620	1,618	1 13 6	1,620 0 0
Upper Waitara	840	13	240	23 Feb., 1893	1,914	"	126	126	..	126 0 0
Vera	2,429	77	2189	2 Oct., 1902	1,488	"	320	320	..	320 0 0
Wairarua	16,797	81	2343	6 Oct., 1904	9,163	"	4,010	4,010	..	4,010 0 0
Waikaka	4,016	77	2190	2 Oct., 1902	3,254	Roads and bridges	960	909	51 8 9	960 0 0
Waikekeho	590	72	1522	16 Aug., 1900	1,178	Road-works	419	419	..	418 16 9
Waikiekie	600	78	1698	15 Oct., 1896	788	"	150	150	..	150 0 0
Waingarara	1,634	78	1666	6 Sept., 1900	1,111	"	373	373	..	372 16 4
Waitangata	10,562	77	2190	2 Oct., 1902	8,617	"	2,575	2,493	54 1 3	2,547 3 6
Waro	11,244	52	1620	23 July, 1903	6,678	"	3,210	3,210	..	3,210 0 0
Whenuakura	10,927	19	340	16 Mar., 1893	5,652	"	1,690	1,690	..	1,690 0 0
		4	57	10 Jan., 1901						
Totals	556,517	..	..	..	373,377	..	136,531	124,725	4,909 6 8	129,635 6 4

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.
HAWKE'S BAY LAND DISTRICT.										
	Acres.				£		£	£	s. d.	£ s. d.
Hikurangi No. 2	4,115	82	1663	16 Nov., 1894	3,217	Road-works	520	497	..	497 5 5
Huiarua	7,750	90	1901 1902	21 Oct., 1897	2,695	"	1,000	737	..	736 10 7
Koranga	17,422	58	1991	4 July, 1907	13,649	"	2,613	..	807 16 6	807 16 6
Liberal	2,800	83	1388	20 Oct., 1892	2,500	"	400	400	..	400 0 0
Mangapoike	14,628	24	521	28 Feb., 1901	8,260	"	1,834	1,834	..	1,833 18 2
Mangatoro, Block I ..	1,700	38	857	3 May, 1900	1,329	"	425	425	..	424 19 5
Mangatoro 1A No. 1 ..	5,016	60	1537	29 June, 1905	32,104	"	1,348	1,348	..	1,347 19 8
Moanui	24,865	59	1620	23 July, 1903	14,000	"	3,108	2,797	303 19 6	3,101 4 6
Motu	33,045	23	479	18 Mar., 1892	16,773	"	2,475	2,475	..	2,475 0 0
Ngapaeruru	44,816	86	1914	1 Dec., 1898	26,370	"	11,000	11,000	..	11,000 0 0
Ngapaeruru No. 2 ..		20	548	15 Mar., 1900		"	..	..	..	..
Nuhaka North	9,549	80	1365	13 Oct., 1892	4,632	"	568	568	..	568 0 0
Nuhaka No. 2	777	68	1324	7 Sept., 1893	486	"	58	58	..	58 0 0
Nuhaka No. 3	4,138	24	522	28 Feb., 1901	5,351	"	1,034	1,031	..	1,030 18 5
Piripiri	8,276	13	475	18 Feb., 1909	53,356	Roads and bridges	4,132	..	..	..
Pohui	4,306	90	1521	11 Nov., 1892	3,655	Road-works	538	538	..	538 0 0
Ruahine	5,154	61	1291	16 Aug., 1894	2,704	"	840	824	..	824 1 9
Ruakituri	4,855	46	939 955	21 June, 1894	4,575	"	364	364	..	364 0 0
Tahora No. 2 South ..	43,037	24	522	28 Feb., 1901	16,139	"	4,304	..	..	..
Tamaki	3,443	83	1042 2222	4 May, 1905 14 Sept., 1905	48,345	"	3,440	3,340	..	3,340 0 0
Tamaki No. 1	3,042	67	2305	1 Aug., 1907	21,877	Roads and bridges	3,043	1,229	1,646 19 3	2,875 15 3
Tauwharetoi	9,404	68	1324	7 Sept., 1893	4,796	Road-works	1,175	1,169	..	1,169 0 0
Tuahu	16,723	67	1859	27 Aug., 1903	6,288	"	2,352	2,350	..	2,350 7 5
Tutamoe	3,073	58	1992	4 July, 1907	5,384	"	1,536	324	975 11 3	1,299 2 7
Umutoaroa	1,461	49	939	22 June, 1893	956	"	100	100	..	100 0 0
Waiau	8,961	23	412	30 Mar., 1893	4,215	"	1,405	1,183	..	1,182 14 6
Waimarama	8,490	11	395	11 Feb., 1909	64,167	Roads and bridges	6,028	..	..	..
Waipaoa	10,732	67	2305	1 Aug., 1907	10,439	Ditto ..	3,279	360	1,749 16 11	2,109 7 4
Waitahaia	13,820	52	1619	23 July, 1903	8,660	Road-works	2,990	2,935	55 0 4	2,990 0 0
Whakapaupakihi	14,379	52	1619	23 July, 1903	12,498	"	1,798	1,798	..	1,797 18 8
Whakarara, Section 14, Block XIII	508	16	342	1 Mar., 1894	406	"	38	38	..	38 0 0
Wharekopae-Tahora No. 2 ..	14,401	24	522	28 Feb., 1901	11,869	"	1,440	1,432	..	1,431 18 0
Woodville	254	49	939	22 June, 1893	286	"	25	25	..	25 0 0
Totals	344,940	..	..	..	411,981	..	65,210	41,179	5,539 3 9	46,716 18 2
WELLINGTON LAND DISTRICT.										
Ahuahu	28,999	61	1682	30 Aug., 1903	15,115	Roads and bridges	7,250	2,344	2,383 19 3	4,727 19 7
Awarua 1B	18,291	104	2723	23 Nov., 1905	16,132	Ditto ..	6,610	2,841	2,804 9 1	5,645 4 1
Clifton No. 1	4,650	28	539	31 Mar., 1892	4,081	Road-works	1,163	1,163	..	1,163 0 0
Dannevirke Centennial ..	11,022	19	340	16 Mar., 1893	5,233	"	2,494	2,494	..	2,493 19 10
East Puketoi	83,500	23	479	18 Mar., 1892	83,500	"	19,375	19,375	..	19,375 0 0
Gladstone	7,597	24	482	28 Mar., 1894	5,822	"	1,899	1,898	..	1,898 8 3
Hall	3,175	19	340	16 Mar., 1893	4,871	"	794	794	..	794 0 0
Hautapu, Blocks XI, XIV, XV	6,188	92	1567	24 Nov., 1892	5,469	"	1,573	1,567	..	1,567 0 0
Hautapu No. 2	6,895	65	1272	24 Aug., 1894	7,207	"	1,714	1,714	..	1,713 15 10
Hautapu-Ruahine	19,804	74	1297	22 Sept., 1892	22,154	"	6,931	6,932	..	6,931 12 3
Hautapu-Ruahine No. 2 ..	16,771	87	1841	28 Nov., 1895	11,152	"	4,192	4,192	..	4,192 0 0
Hikimutu	16,290	49	1735	6 June, 1907	21,126	"	4,072	105	2,496 4 9	2,600 17 9
Horopito	400	72	1505	2 Oct., 1894	350	"	100	..	..	..
Horopito West	365	81	2661 2670 2673	22 Oct., 1908	9,861	"	2,731	..	..	..
Kaiparoro	9,409	60	1245	15 Aug., 1895	6,414	"	1,174	1,174	..	1,174 0 0
Kaiparoro No. 2	400	30	773	1 April, 1897	150	"	50	50	..	50 0 0
Kaitangata	7,105	89	1863	5 Dec., 1895	4,215	"	884	884	..	884 0 0
Kaitieke	45,500	12	283	14 Feb., 1895	41,700	"	11,375	11,365	9 1 8	11,373 15 10
Kaiwaka, Blocks IV, VIII, XI	4,789	4	56	10 Jan., 1901	1,768	"	598	598	..	598 0 0
Kakahi Village Settlement ..	17	73 81	2497 2670	24 Sept., 1908 22 Oct., 1908	710	"	231	..	..	..
Kakariki	5,000	23	413	30 Mar., 1893	5,786	"	1,562	1,562	..	1,562 0 0
Kawautahi	7,677	49	1736	6 June, 1907	10,814	"	1,919	97	1,168 13 0	1,265 14 4
Kawhatau	5,644	94	1951	21 Dec., 1894	6,625	"	1,425	1,425	..	1,425 0 0
Kirikau	13,642	49	1736	6 June, 1907	18,584	"	3,410	242	1,774 2 1	2,016 5 3
Makotuku, Block III ..	1,608	1	4	7 Jan., 1904	1,860	"	402	402	..	402 0 0
Malton Farm Homestead ..	1,208	80	1637	8 Oct., 1894	944	"	302	302	..	302 0 0
Manganui and Ruapehu ..	7,350	46	958	21 June, 1894	6,337	"	1,838	1,838	..	1,838 0 0
Mangoira-Coal Creek ..	6,500	74	1297	22 Sept., 1892	8,204	"	2,031	2,030	..	2,030 0 0
Marton No. 3	9,078	79	2162	8 Oct., 1903	8,050	"	2,270	2,270	..	2,270 0 0
Maungakaretu	508	7	273	1 Feb., 1906	1,311	"	254	254	..	254 0 0
Mecalickstone	6,011	19	339	16 Mar., 1893	4,834	"	1,503	1,503	..	1,503 0 0
Moumahaki	526	72	1274	15 Sept., 1892	440	"	156	156	..	156 0 0
Moumahaki Village Settlement	824	7	131	25 Jan., 1894	6,311	"	1,360	1,360	..	1,360 0 0
Carried forward	356,743	..	..	..	347,130	..	93,642	72,931	10,636 9 10	83,566 13 0

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c.
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.
WELLINGTON LAND DISTRICT—continued.										
	Acres.				£		£	£	£ s. d.	£ s. d.
Brought forward ..	356,743	..	..	..	347,180	..	93,642	72,931	10,636	9 10 83,566 13 0
Mount Baker ..	8,291	15	336	18 Feb., 1892	8,710	Road-works	2,487	2,487	..	2,487 0 0
Mowhanau Village Settlement ..	380	7	255	29 Jan., 1903	5,320	"	380	378	..	378 7 9
Ngamatea-Maungakaretu ..	8,315	4	55	10 Jan., 1901	6,491	"	2,078	2,078	..	2,078 0 0
Ngaurukehu ..	1,092	4	55	10 Jan., 1901	1,092	"	409	409	..	408 19 2
Nireaha Village Settlement ..	552	74	2619	22 Aug., 1907	5,648	Roads and drains	250	250	..	249 18 4
North-east Puketoi ..	13,300	15	336	18 Feb., 1892	16,455	Road-works	3,990	3,990	..	3,990 0 0
Ohakune Village Settlement ..	539	81	2669 2697	22 Oct., 1908	6,434	"	2,776	..	93 15 3	93 15 3
Ohinewairua ..	7,462	11	242	28 Jan., 1897	7,491	"	1,865	1,864	..	1,864 1 3
Ohinewairua, Block XIII ..	876	4	55-6	10 Jan., 1901	2,734	"	481	481	..	481 0 0
Ohinewairua-Pukeokahu ..	9,785	4	56	10 Jan., 1901	9,330	"	2,935	2,935	..	2,935 0 0
Omahine, Block I ..	455	8	152	2 Feb., 1893	341	"	114	114	..	114 0 0
Onslow ..	2,405	34	640	28 April, 1892	1,327	"	601	600	..	600 0 0
Orakura ..	4,456	78	1803	21 Sept. 1899	6,691	"	1,114	1,114	..	1,114 0 0
Oroua-Coal Creek ..	5,630	15	336	18 Feb., 1892	6,178	"	1,050	1,050	..	1,050 0 0
Owhanga ..	35	81	2371 2374	22 Oct., 1908	1,600	"	795	..	..	..
Palmerston North Knights of Labour ..	10,995	28	539	31 Mar., 1892	12,222	"	2,749	2,749	..	2,749 0 0
Pohangina ..	4,722	28	539	31 Mar., 1892	4,250	"	1,181	1,181	..	1,181 0 0
Pohonuiatane ..	27,754	19	340	16 Mar., 1893	26,476	"	6,959	6,958	..	6,958 6 0
Pukeokahu ..	11,379	87	1841	28 Nov., 1895	11,957	"	2,844	2,844	..	2,844 0 0
Puketoi-Aohanga ..	1,277	10	283	13 Feb., 1896	1,027	"	319	319	..	319 0 0
Rangataua ..	153	92	1933	19 Dec., 1895	1,027	"	319	319	..	319 0 0
		73	2497	24 Sept., 1908		"				
		81	2671	22 Oct., 1908	4,418	"	1,913	..	..	..
			2674			"				
Raupiu ..	3,080	49	1433	25 June, 1903	2,457	"	385	385	..	385 0 0
Retaruke ..	16,055	49	1736	6 June, 1907	20,386	"	4,014	258	1,671 11 10	1,929 8 3
Ruatiti ..	18,500	85	2649	11 Oct., 1906	13,875	"	4,625	650	1,552 7 5	2,202 4 1
Salisbury and Delaware ..	13,392	28	539	31 Mar., 1892	14,257	"	3,348	3,348	..	3,348 0 0
Sommerville ..	8,566	28	539	31 Mar., 1892	9,085	"	2,142	2,142	..	2,142 0 0
South Kaitieke ..	9,612	62	1738	6 Aug., 1903	5,357	"	2,403	164	1,591 10 7	1,755 19 0
Stirling ..	4,770	28	539	31 Mar., 1892	6,678	"	1,193	1,192	..	1,192 0 0
Taibape Village Settlement ..	117	1	3, 4	7 Jan., 1904	278	"	117	117	..	117 0 0
Extension ..						"				
Taonui-Maraetua-Pukewhakapu ..	9,799	49	1186	25 May, 1905	8,893	"	2,450	333	53 8 4	386 6 7
		85	2486	27 Oct., 1904		"				
Tapui Settlement ..	1,267	15	560	14 Feb., 1907	1,724	"	474	474	..	474 0 0
		17	677	21 Feb., 1907		"				
Tararua ..	3,993	19	340	16 Mar., 1893	4,592	"	998	998	..	998 0 0
Tauakira ..	20,736	72	1522	16 Aug., 1900	16,551	"	2,592	2,592	..	2,592 0 0
Te Mara ..	3,549 of 18,700	56	1092	13 July, 1893	2,384	"	436	428	..	427 16 3
Te Ngaue ..	1,470	54	1106	16 July, 1896	1,286	"	367	367	..	367 0 0
Te Ruanui ..	1,545	4	55	10 Jan., 1901	4,256	"	386	386	..	386 0 0
Tiriraukawa-Hautapu ..	5,622	4	56	10 Jan., 1901	5,250	"	1,686	1,686	..	1,686 0 0
Tupapanui ..	2,614	65	2090	2 Aug., 1906	2,614	"	653	175	338 13 10	513 8 9
Umutoi ..	2,200	28	539	31 Mar., 1892	1,675	"	550	550	..	550 0 0
Upper Makohine ..	14,201	24	564	7 April, 1898	15,851	"	3,230	3,230	..	3,229 19 11
Waimarino ..	20,900	15	336	18 Feb., 1892	16,880	"	7,837	7,836	..	7,835 10 6
Waiwera ..	3,900	23	413	30 Mar., 1893	4,101	"	1,460	1,460	..	1,460 0 0
Wanganui ..	6,222	19	340	16 Mar., 1893	6,046	"	1,556	1,556	..	1,556 0 0
Wellington Fruit-growers' Association ..	2,608	72	1274	15 Sept., 1892	8,543	"	1,304	1,304	..	1,304 0 0
Totals ..	651,314	..	..	..	666,341	..	175,138	136,363	15,937 17 1	152,299 14 1

NELSON LAND DISTRICT.

Big Bush ..	14,309	73	2229	23 Aug., 1906	4,469	Road-works	715	530	184 14 0	715 0 0
Brewerton ..	3,757	107	2230	7 Dec., 1905	939	"	197	188	0 16 10	188 18 5
Brighton ..	1,507	86	2323	28 Sept., 1905	1,168	"	188	13	130 3 3	143 12 9
Dart ..	7,931	12	611-12	20 Feb., 1908	2,758	"	594		272 0 5	272 0 5
Glenroy ..	13,127	58	2010	4 July, 1907	4,489	"	984	5	335 14 11	341 3 7
Heaphy ..	13,030	109	2862	14 Dec., 1905	4,029	"	1,344			
Hope ..	3,311	99	2638	16 Nov., 1905	828	"	248	122		121 11 6
Inangahua ..	3,184	90	2423	19 Oct., 1905	1,658	"	781	694	7 18 0	701 14 6
Inangahua Junction ..	4,220	1	5	9 Jan., 1908	2,303	"	1,055		278 5 10	278 5 10
Kongahu ..	15,794	90	2424	19 Oct., 1905	6,152	"	2,735		580 18 11	580 18 11
Lee River ..	2,516	84	2276	21 Sept., 1905	629	Roads and bridges	314		313 15 9	313 15 9
Mangles-Blackwater ..	8,108	67	2308	27 Aug., 1908	3,839	Road-works	608			
Maruia ..	22,445	90	2422	19 Oct., 1905	7,601	"	3,143	1,705	938 8 7	2,643 16 7
Maruia North ..	19,311	60	1946	19 July, 1906	6,220	"	3,110	1,819	1,289 17 11	3,108 11 9
Matakitaki ..	4,728	102	3150	17 Dec., 1908	1,773	"	591			
Carried forward ..	137,278				48,855		16,607	5,076	4,332 14 5	9,409 10 0

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c.
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.
NELSON LAND DISTRICT—continued.										
Brought forward	Acres. 137,278	..	..	..	£ 48,855	..	£ 16,607	£ 5,076	£ s. d. 4,332 14 5	£ s. d. 9,409 10 0
Matiri	11,620	{ 90 2423 19 Oct., 1905	15 569 14 Feb., 1907	..	4,386	Road-works	1,536	1,086	401 6 0	1,487 0 0
Matiri East	9,361	{ 3 80 18 Jan., 1906	17 649 1 Mar., 1906	..	2,819	{ Roads and bridges	701	603	97 16 9	701 0 0
Maungatapu	2,632	42 1467 9 May, 1907	..	..	1,135	Road-works	197	169	28 7 2	196 19 6
Mid Maruia	21,750	47 1673 30 May, 1907	..	..	9,663	"	2,175	13	476 10 2	489 1 4
Mokihinui	8,013	90 2425 19 Oct., 1905	..	..	2,951	"	1,133	71	683 16 7	754 9 4
Mount Arthur	4,350	90 2423 19 Oct., 1905	..	..	1,087	"	326	326	..	326 0 0
Mount Arthur No. 2 ..	14,484	90 1523 11 Nov., 1892	..	..	4,345	"	1,086	199	664 9 11	863 18 10
Murchison Village Settlement	31	2 12, 13 10 Jan., 1907	..	..	249	"	62	..	..	..
Nuggety	5,698	93 2992 26 Nov., 1908	..	..	2,407	"	712	..	..	..
Oparara	19,635	99 2638 16 Nov., 1905	..	..	7,076	"	2,699	..	21 0 0	21 0 0
Orikaka	20,052	95 2528 2 Nov., 1905	..	..	5,184	"	2,506	..	..	..
Otumahana	20,824	90 2424 19 Oct., 1905	..	..	6,069	"	2,603	..	109 0 4	109 0 4
Owen	5,233	95 2528 2 Nov., 1905	..	..	1,538	"	623	561	61 12 2	622 19 6
Owen East	7,707	109 2862 14 Dec., 1905	..	..	2,473	"	549	547	..	546 19 3
Rainy River	9,584	95 2528 2 Nov., 1905	..	..	2,700	"	726	541	165 14 5	706 10 4
Rappahannock	7,109	47 1674 30 May, 1907	..	..	2,658	"	711	..	..	..
Spooner Range	3,793	75 2287 30 Aug., 1906	..	..	1,092	"	96	54	..	53 10 7
Tadmor	2,109	14 592 22 Feb., 1906	..	..	537	"	116	116	..	116 0 0
Totaranui	7,547	{ 99 2639 16 Nov., 1905	17 649 1 Mar., 1906	..	2,037	"	566	14	..	14 3 4
Totaranui No. 3	1,990	104 3150 13 Dec., 1906	..	..	497	"	100	..	..	..
Upper Aore	3,475	47 1688 18 June, 1908	..	..	1,043	"	87	..	31 4 1	31 4 1
Wairoa Forks	7,978	26 958 9 April, 1903	..	..	1,995	"	576	..	376 3 7	376 3 7
Wangamoa	11,940	93 2992 26 Nov., 1908	..	..	5,371	"	298	..	..	..
Wareatea	829	112 2950 21 Dec., 1905	..	..	326	"	163	..	..	..
Warwick	5,821	47 1673 30 May, 1907	..	..	2,338	Roads and bridges	582	..	..	..
Westport	2,279	104 2723 23 Nov., 1905	..	..	791	Road-works	332	321	..	320 15 2
Totals	353,122	..	..	..	121,622	..	37,868	9,697	7,449 15 7	17,146 5 2
MARLBOROUGH LAND DISTRICT.										
Bartlett's Creek	4,481	46 1357 11 June, 1903	..	..	1,617	Road-works	404	404	..	403 19 5
Hundalee	38,329	{ 30 773 1 April, 1897	97 2081 18 Nov., 1897	..	24,540	"	7,500	7,500	..	7,500 0 0
Kaitao	9,436	90 729 6 April, 1899	..	..	5,676	"	2,500	2,500	..	2,499 17 5
Pine Valley	19,744	68 1477 10 Aug., 1899	..	..	7,452	"	1,863	1,444	2 4 8	1,446 10 2
Puhipuhi	36,329	91 2022 20 Dec., 1898	..	..	15,709	"	4,169	4,169	..	4,169 0 0
Rimu Gully	1,456	58 1991 4 July, 1907	..	..	1,918	"	639	93	310 4 5	402 17 7
Ronga Valley No. 1 ..	588	81 2659 22 Oct., 1908	..	..	1,615	"	150	..	..	..
Stag and Spey	12,246	34 821 4 April, 1901	..	..	11,148	"	2,787	2,787	..	2,787 0 0
Tinline	1,650	18 527 6 Mar., 1902	..	..	805	"	201	201	..	200 18 6
Waipapa	49,410	2 4 9 Jan., 1902	..	..	17,662	"	1,766	1,764	..	1,764 0 0
Totals	173,669	..	..	..	88,142	..	21,979	20,862	312 9 1	21,174 3 1
WESTLAND LAND DISTRICT.										
Bruce Bay	2,806	20 894 19 Mar., 1908	..	..	800	Road-works	240	..	239 18 9	239 18 9
Clearwater	772	83 2708 29 Oct., 1908	..	..	312	"	75	..	..	..
Haast River	2,527	83 2709 29 Oct., 1908	..	..	1,200	"	100	..	..	..
Mount Bonar	747	73 2226 23 Aug., 1906	..	..	250	"	100	..	99 19 9	99 19 9
Okuru	1,044	59 2026 30 July, 1908	..	..	300	"	100	..	..	..
Punakaiki	6,078	52 1774 2 July, 1908	..	..	2,195	"	595	..	12 10 4	12 10 4
Waitaha	4,270	52 1160 23 May, 1901	..	..	5,362	"	1,341	1,342	..	1,341 10 6
Wataroa	2,847	89 3025 10 Oct., 1907	..	..	1,300	"	250	..	45 2 3	45 2 3
Totals	21,091	..	..	..	11,719	..	2,801	1,342	397 11 1	1,739 1 7
CANTERBURY LAND DISTRICT.										
Ruapuna	847	80 1640 8 Nov., 1894	..	..	1,270	Road-works	106	75	..	75 0 0
Waimate Reserve No. 1126	626	72 1273 15 Sept., 1892	..	..	6,269	"	300	300	..	300 0 0
Waimate Reserve No. 1128	505	72 1273 15 Sept., 1892	..	..	7,268	"	25	25	..	25 0 0
Waimate Reserve No. 1178	157	72 1273 15 Sept., 1892	..	..	2,193	"	25	25	..	25 0 0
Totals	2,135	..	..	..	17,000	..	456	425	..	425 0 0

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c.
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.

OTAGO LAND DISTRICT.										
	Acres.				£		£	£	£ s. d.	£ s. d.
Blackstone	22,535	10	233	7 Feb., 1895	24,748	Road-works	500	500	..	500 0 0
Catlin's (Blocks IV, V, VI, VII)	8,580	16	530	23 Feb., 1905	3,828	"	1,057	1,057	..	1,056 17 9
Catlin's, Block II	196	13	246	23 Feb., 1893	196	"	50	50	..	50 0 0
Gimmerburn	8,682	24	481	29 Mar., 1894	6,152	"	1,032	1,032	..	1,032 0 0
Glenomaru, Blocks III, IV, V, VII, IX, X	1,495	95	1606	8 Dec., 1892	946	"	237	179	..	179 0 0
Glenomaru, Block VI	25	62	1211	10 Aug., 1893	80	"	25	25	..	25 0 0
Lauder-Blackstone	3,809	24	481	29 Mar., 1894	3,608	"	476	476	..	476 0 0
Lauder-Tiger Hill	28,823	24	481	29 Mar., 1894	22,112	"	1,000	1,000	..	1,000 0 0
Lower Wanaka	3,368	34	714	10 May, 1894	1,250	"	101	101	..	101 0 0
Maniototo	277	24	481	29 Mar., 1894	245	"	104	100	..	100 0 0
Maniototo No. 2	6,916	10	233	7 Feb., 1895	5,911	"	907	600	..	600 0 0
Maniototo No. 3	6,295	12	284	14 Feb., 1895	6,001	"	300	300	..	300 0 0
Maruenua	49,116	15	336	18 Feb., 1892	72,246	"	7,000	7,000	..	7,000 0 0
Naseby, No. 2	2,444	10	234	7 Feb., 1895	2,038	"	313	313	..	313 0 0
Naseby, Maniototo, and Gimmerburn	5,277	79	1774	3 Nov., 1898	3,677	"	910	910	..	910 0 0
Rankleburn, Block VI	544	102	1744	29 Dec., 1892	194	"	136	136	..	136 0 0
Rimu	1,609	13	246	23 Feb., 1893	525	"	249	..	..	..
Swinburn	1,790	28	740	25 Mar., 1897	1,610	"	288	288	..	288 0 0
Tahaukupu	2,817	40	656	18 May, 1893	2,256	"	675	675	..	675 0 0
Tautuku, Block I	3,850	13	245	23 Feb., 1893	2,800	"	555	555	..	555 0 0
Tuapeka West, Blocks I, II, III, IV, VII, VIII	2,545	77	1346	6 Oct., 1892	1,681	"	367	367	..	367 0 0
Woodlands, Blocks II, V, VI, VIII	13,400	102	1742	29 Dec., 1892	11,225	"	4,950	4,950	..	4,950 0 0
Woodlands, Blocks VII, X, XI	1,693	102	1745	29 Dec., 1892	1,384	"	307	307	..	307 0 0
Totals	176,086	13	246	23 Feb., 1893	174,713	..	21,539	20,921	..	20,920 17 9

SOUTHLAND LAND DISTRICT.										
Ackers	351	68	1327	7 Sept., 1893	702	Road-works	220	217	..	216 16 3
Alton No. 2	2,722	21	831	22 Mar., 1906	1,269	"	317	..	247 19 6	247 19 6
Hillend	857	112	2950	21 Dec., 1905	433	"	108	108	..	108 0 0
Hokonui	404	7	149	30 Jan., 1896	253	"	95	85	..	85 7 10
Hokonui No. 2	1,181	39	1021	27 April, 1905	714	"	152	152	..	151 17 2
Invercargill Hundred, Block XXIII	1,403	81	2182	7 Sept., 1905	1,840	"	400	400	..	400 0 0
Lillburn, Monowai, and Alton	30,059	72	1273	15 Sept., 1892	13,299	"	8,000	8,000	..	8,000 0 0
Longwood	2,827	83	1389	20 Oct., 1892	1,322	"	330	65	16 14 10	81 13 0
Longwood, Blocks XVI and I	5,659	16	529	23 Feb., 1905	2,830	"	1,400	1,400	..	1,400 0 0
Lora	2,913	90	1529	11 Nov., 1892	1,330	"	332	267	64 10 6	331 18 10
Mabel	343	73	1884	3 Aug., 1905	231	"	58	58	..	58 0 0
Mokoreta	7,400	73	1883	3 Aug., 1905	3,700	"	492	202	..	201 19 5
Otapiri	616	23	411	30 Mar., 1893	313	"	78	76	1 15 0	77 9 10
Oteramika	6,253	71	1377	21 Sept., 1893	2,006	"	625	266	15 7 8	281 3 9
Paterson, Block I	633	71	1377	21 Sept., 1893	256	"	158	158	..	158 0 0
Waiau (Blocks XIII and XIV, Waiau Survey District)	5,472	23	411	30 Mar., 1893	2,070	"	732	732	..	732 0 11
Waikawa	6,000	83	2221	14 Sept., 1905	3,000	"	1,500	1,500	..	1,500 0 0
Waikawa No. 1	1,194	23	412	30 Mar., 1893	663	"	331	124	187 7 5	311 8 11
Waikawa, Block II	307	84	2260	21 Sept., 1905	643	"	186	62	65 4 2	127 8 10
Waikawa-Otara	31,615	90	1901	21 Oct., 1897	15,500	"	7,750	7,750	..	7,749 12 5
Waikawa-Otara Extension	1,647	23	411	30 Mar., 1893	664	"	199	107	86 8 0	193 12 0
Waimatua	6,131	67	1919	11 Aug., 1904	10,447	"	1,990	..	1,061 2 3	1,061 2 3
Winton	2,023	70	2402	10 Sept., 1908	1,515	"	379	379	..	379 0 0
Totals	118,020	77	2019	24 Aug., 1905	65,000	..	25,832	22,108	1,746 9 4	23,855 10 11

SUMMARY.										
Auckland Land District	1,004,672	..	..	..	605,402	..	186,886	134,547	18,420 1 8	152,967 16 0
Taranaki	556,517	..	..	..	373,377	..	136,531	124,725	4,909 6 8	129,635 6 4
Hawke's Bay	344,940	..	..	..	411,981	..	65,210	41,179	5,539 3 9	46,716 18 2
Wellington	651,314	..	..	..	666,341	..	175,138	136,363	15,937 17 1	152,299 14 1
Nelson	353,122	..	..	..	121,622	..	37,868	9,697	7,449 15 7	17,146 5 2
Marlborough	173,669	..	..	..	88,142	..	21,979	20,862	312 9 1	21,174 3 1
Westland	21,091	..	..	..	11,719	..	2,801	1,342	397 11 1	1,739 1 7
Canterbury	2,135	..	..	..	17,000	..	456	425	..	425 0 0
Otago	176,086	..	..	..	174,713	..	21,539	20,921	..	20,920 17 9
Southland	118,020	..	..	..	65,000	..	25,832	22,108	1,746 9 4	23,855 10 11
Totals	3,401,566	..	..	..	2,535,297	..	674,240	512,169	54,712 14 3	566,880 13 1

* The figures give the totals to the nearest pound for the year ending 31st March, 1906.

Table 38.—SUMMARY of WORK DONE for other DEPARTMENTS and for LOCAL BODIES during the Year ended 31st March, 1909.

District in which Work was executed.				Cost.		District in which Work was executed.				Cost.	
				£	s. d.					£	s. d.
Auckland				3,219	7 3	Brought forward ..				16,607	2 2
Hawke's Bay				774	1 8	Westland				245	10 8
Taranaki				1,458	19 11	Canterbury				3,082	11 2
Wellington				8,711	19 0	Otago				488	14 8
Nelson				1,845	1 7	Southland				322	3 3
Marlborough				597	12 9	Total				20,746	1 11
Carried forward ..				16,607	2 2						

Table 39.—CROWN GRANTS, CERTIFICATES of TITLE, LEASES, and other INSTRUMENTS OF TITLE from the CROWN prepared from 1st April, 1908, to 31st March, 1909.

District.	Number.					Cost.
	Singly.	In Duplicate.	In Triplicate.	In Quadruplicate	Total Copies.	
Auckland	450	115	256	170	2,128	£ s. d. 110 0 0
Hawke's Bay .. .. .	..	14	50	87	526	26 6 0
Taranaki .. .. .	..	..	75	54	441	10 0 4
Wellington	1	76	805	712	5,416	159 8 0
Nelson	4	46	55	121	745	55 17 6
Marlborough	6	3	51	4	181	12 0 0
Westland	26	112	38	128	876	221 18 0
Canterbury .. .. .	..	21	7	54	279	20 18 6
Otago .. .. .	..	150	160	..	780	38 0 0
Southland	30	33	49	29	359	21 0 0
Totals	517	570	1,546	1,359	11,731	675 8 4

Table 40.—SUMMARY showing PAYMENTS to LOCAL BODIES during the Twelve Months ended 31st March, 1909, from "Thirds" of Deferred-payment, Perpetual-lease, Occupation-with-right-of-purchase, Renewable-lease, and Lease-in-perpetuity Lands, "Fourths" of Small Grazing-runs, and "Halves" of Timber and Flax Royalties.

District.				“Thirds,” Deferred-payment, Perpetual-lease, Occupation-with- right-of-purchase, Renewable-lease, and Lease-in- perpetuity Lands.			“Fourth,” Small Grazing- ns.			“Halves,” Timber and Flax.			Total Payments		
				£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Auckland	..	..	..	6,118	11	6	119	14	3	13,620	0	0	19,858	5	9
Hawke's Bay	..	..	..	5,317	13	0	312	19	7	22	5	7	5,652	18	2
Taranaki	..	..	..	2,914	8	7	29	15	4	1	7	10	2,945	11	9
Wellington	..	..	..	12,721	9	3	73	8	6	..	..	..	12,794	17	9
Nelson ..	..	..	..	694	13	5	11	16	4	1,314	9	0	2,020	18	9
Marlborough	..	..	..	1,552	9	0	883	7	7	790	7	1	3,226	3	8
Westland	..	..	..	634	19	2	..	..	..	3,878	11	11	4,513	11	1
Canterbury	..	..	..	381	12	10	398	2	9	64	5	5	844	1	0
Otago ..	..	..	..	1,339	8	0	696	11	4	98	3	8	2,134	3	0
Southland	..	..	..	1,057	1	5	82	14	8	726	7	8	1,866	3	9
Totals				32,732	6	2	2,608	10	4	20,515	18	2	55,856	14	8

Approximate Cost of Paper.—Preparation, not given; printing (1,500 copies), including maps and illustrations, £313 1s.

C.-1.



C - 1

30'

174°

30'



SETTLEMENTS ACTS UP TO 31st MARCH, 1909.

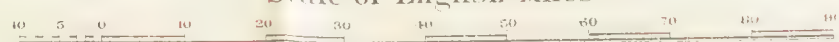
INDEX TO SETTLEMENTS.—SOUTH ISLAND.



SOUTH ISLAND
(TE WAI-PONAMU)
NEW ZEALAND

Showing Land Transactions, 1908-09.

Scale of English Miles



Reference

Land taken up during the year . . . thus

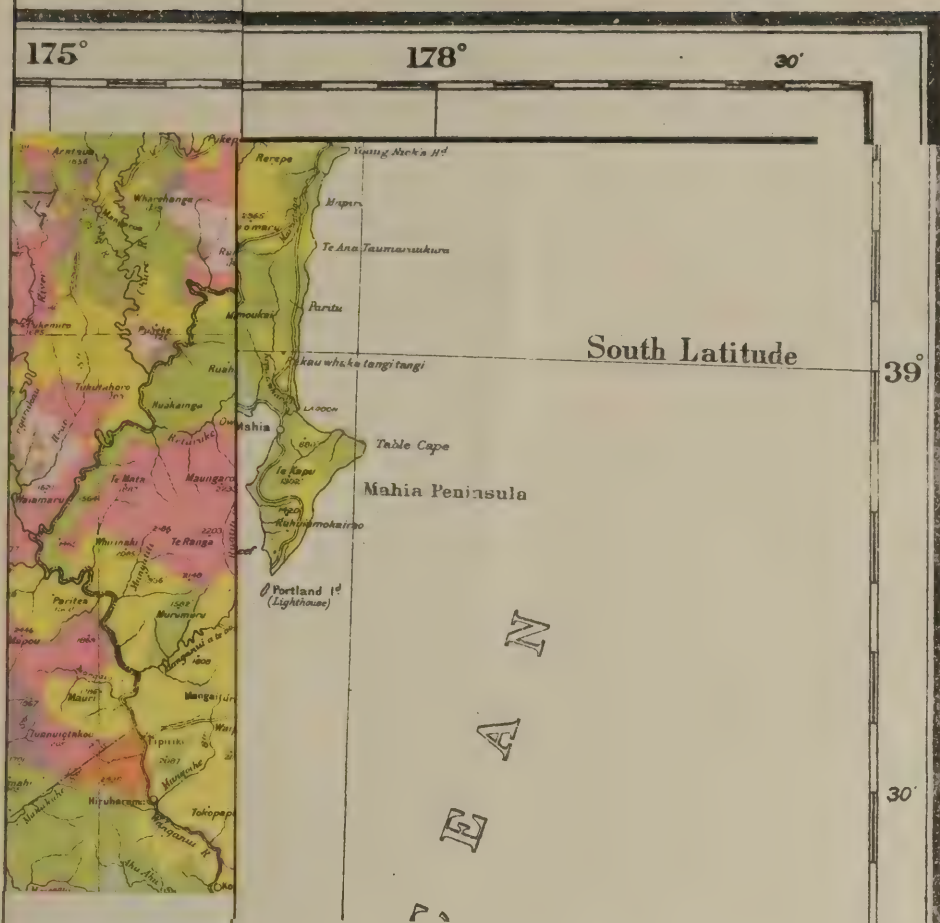
Lands available for settlement.

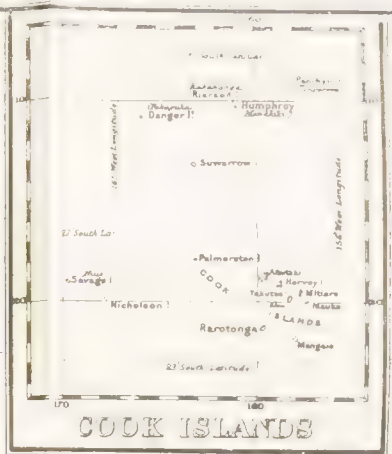
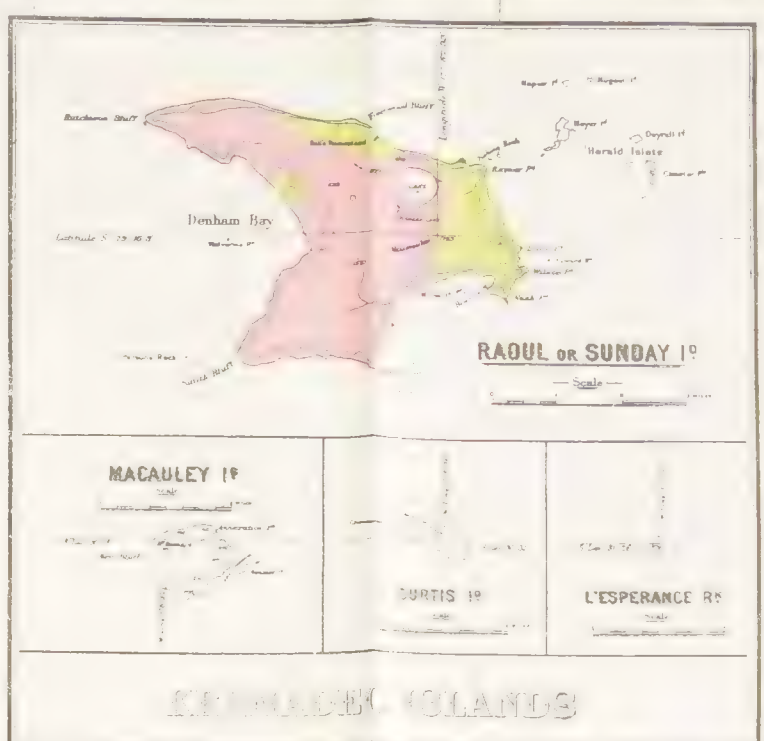
Under Lateral for Settlements Act

T A S M A N S E A

South Latitude

Stewart Island





Reference
Cities Wellington
Boroughs
Towns
Railways
Roads
Boundaries of Land Districts
Projection-Rectangular Spheroidal



C-1



45°

SOUTH ISLAND
(TE WAI-POUNAMU)
NEW ZEALAND
(AOTEA-ROA)

Showing the Land Tenure, 1908-1909.

Scale of English Miles



Reference
Cities
Boroughs
Towns and villages
Railways and sidings
Roads
Boundaries of Land Districts
Projection - Rectangular Tangential

T A S M A N S E A

South Latitude

Stewart Island
(Rakapiri)

Karamea Bight

Pegasus Bay

Banks Peninsula

Canterbury Bight

AUCKLAND ISLAND

CANTERBURY ISLAND

(REKOHU or WHARE-AUARI)
CHATHAM ISLANDS

NEW ZEALAND.

DEPARTMENT OF LANDS.

R E P O R T

ON THE

SURVEY OPERATIONS

FOR THE

YEAR 1908-9.

BY

THOMAS HUMPHRIES,

SURVEYOR-GENERAL.



WELLINGTON.

BY AUTHORITY: JOHN MACKAY, GOVERNMENT PRINTER.

1909.

1909.
NEW ZEALAND.

DEPARTMENT OF LANDS: SURVEYS

(ANNUAL REPORT ON).

Presented to both Houses of the General Assembly by Command of His Excellency.

The SURVEYOR-GENERAL to the Right Hon. the MINISTER OF LANDS.

SIR,—

Department of Lands and Survey, Wellington, 25th May, 1909.

I have the honour to submit herewith the annual report on the survey operations of the Department for the twelve months ended the 31st March, 1909.

I have, &c.,

THOS. HUMPHRIES,

Surveyor-General.

The Right Hon. Sir Joseph G. Ward, P.C., K.C.M.G., Minister of Lands.

REPORT.

The output by the field staff for the year is summarised below, but the complete details for the different districts will be found in the attached tables and reports of the several Chief Surveyors in charge.

The total cost of the surveyors and their parties amounted to £71,068, which is about £2,800 in excess of that of the previous year. This is accounted for chiefly by the increased demands for settlement surveys, which necessitated the employment of additional surveyors, both staff and contract; at the close of the year, the former alone numbered seventy-six.

The following is a summary of the principal work completed during the past year :—

Class of Work.	Area.	Cost per Acre.	Total Cost.
	Acres.		£ s. d.
Minor triangulation	162,355	1·18d.	2,628 2 7
Topographical	75,486	3·76d.	1,182 6 10
Topographical, for selection as unsurveyed ...	38,052	4·07d.	646 15 9
Rural and suburban, by staff	365,949	1·53s.	28,018 18 10
Rural and suburban, by licensed surveyors ...	8,324	...	...
Town	525	£23 8	1,120 0 10
		per section	
Native Land Court, by staff	37,456	9·71d.	1,515 1 8
Native Land Court, by licensed surveyors ...	121,439	...	...
Maori Land Board	49,193	15·70s.	3,219 8 2
Gold-mining, by staff	248	3·08s.	38 5 2
Gold-mining, by licensed surveyors	6,108	...	...
Roads and railways	226 miles	£21 per mile	4,755 4 11
Miscellaneous work and other duties ... ..	...	...	12,879 8 1

The work returned as completed under the various classes is generally a little less than that of last year, excepting the actual settlement survey—*i.e.*, rural and suburban—which is largely in excess; and there is also a very considerable area the survey of which is drawing near completion.

TRIANGULATION.

Four hundred and sixteen square miles of minor triangulation in different districts have been completed in the field; but, owing to the mapping of 162 square miles not having been finished, only 254 appear in the tables. The unreturned work is a revision of triangulation executed in the early days, when the standard of precision was low as compared with present-day requirements. It was found to be of no service as a check on surveys executed, as they now are, with greatly improved methods and appliances.

In my previous reports the pressing need for a major triangulation has been referred to, and I would again respectfully draw attention to its urgent necessity, and strongly advise its steady and continuous prosecution; which, besides its immense value in other respects departmentally, will give great satisfaction to surveyors, both official and those in private practice, in simplifying their work; for it means linking up and bringing into harmony the very numerous series or groups of uncontrolled minor work, with their various standards of length—a very serious disadvantage, for all other surveys throughout the Dominion are now invariably based on a uniform standard of length—*viz.*, the “Imperial.”

From Wellington to seventy miles north of New Plymouth, a total stretch of two hundred miles, the permanent signals have been erected, and, with a few exceptions, the angular work completed over 10,000 square miles of country, and it now only requires the bases to be measured and a comparatively small amount of instrumental work to be done—the extent of which is shown on a map appended—to make it serviceable in controlling the minor triangulation now covering the area. Unfortunately, in the Taranaki portion, what with the unfavourable conformation of the country, combined with its densely wooded nature, the sides of the triangles have been unavoidably restricted to from ten to twelve miles in length. An improvement in this respect will no doubt be obtainable in years to come when the country has been cleared of the existing heavy forest. It is, however, very gratifying to report that under recent instructions this particular section of the work, which was suspended six years ago, has been resumed, and an excellent base of a little over eight miles in length at the south end, in the Wairarapa, has been selected and measured, particulars of which are published as a separate paper.

SETTLEMENT SURVEYS.

The survey of 374,273 acres into 1,169 sections, averaging 320 acres each, has been completed during the year; but if the subdivision of Native land under Maori Land Boards for the purpose of offering it on lease to the public, comprising 49,193 acres, be added, the surveys executed for settlement purposes total 423,466 in 1,244 sections.

The Auckland District takes the lead in this particular class of work with 92,243 acres of sectionised Crown land, and 34,855 acres of Maori Land Board subdivisions; the Wellington District returns 53,678 acres of Crown land subdivided, and 14,338 acres for Maori Land Boards; Otago supplies 50,478 acres; and the remaining districts from 39,374 in the Nelson District to 11,446 in the Hawke's Bay District, all Crown lands.

Besides the foregoing, there has been the subdivision of a pastoral run into small grazing-runs, amounting to 27,550 acres, so that surveys for settlement purposes in one way or another, exclusive of pastoral runs, have been completed during the year of 451,016 acres.

At the close of the year there were in the hands of the surveyors, together with unsurveyed selections, 615,000 acres of settlement surveys, 90,000 acres of which is finished in the field, but mapping not yet done, though it is hoped that during the winter season the plan-work will be mostly if not fully completed.

The surveys of “unsurveyed selections” are greatly in arrear, particularly in the Nelson District, where there are 68,565 acres of them in the hands of the surveyors, and a further 65,335 of similar selections awaiting survey; in all 133,900 acres, of which, however, the survey of about 20,000 has lately been completed in the field, but not yet mapped. In view of this it is evident that the field staff in this particular district needs strengthening, more especially as two of the surveyors there have lately retired; it would also be advisable to give private surveyors contracts, so as to speedily reduce the accumulation of arrears, and place the selectors in possession.

NATIVE SURVEYS.

Of Native Land Court surveys completed during the year, 37,456 acres were executed by staff officers and 121,439 acres by licensed surveyors under arrangements with the Native owners. The gross total for the four land districts in the North Island where the surveys were executed was 158,895 acres, of which the Auckland District contributed two-thirds.

Other surveys of Native lands were made by the staff to the extent of 49,193 acres at the request of the Maori Land Boards, to which also reference has been made under heading of "Settlement Surveys."

The survey of Native land now in progress for Land Court orders, Maori Land Boards, and Native Land Commissions, amounts to 210,000 acres, including 24,900 acres for landless Natives in the Southland District.

GOLD-MINING SURVEYS.

Only 73 fresh claims were surveyed, less in number than last year, but the area is somewhat larger. They were distributed among the districts as follow: Auckland, 35; Nelson, 12; Otago, 22; and Southland, 4.

INSPECTION OF SURVEYS.

There are three regular Inspectors in the two districts where the most surveyors—official and private—are engaged; in the other districts this duty is performed by the Chief Surveyors or one or other of the District Surveyors in conjunction with their other regular duties.

Ninety-five independent field checks have been made on various surveyors' work, chiefly those in private practice under the Land Transfer Act. In the very great majority of cases the work has been found to be of the usual high standard, and most creditable to the profession as a whole; but there have been a few exceptions which have proved the necessity for the practice of frequent inspection and field check.

OPERATIONS, 1909-10.

The ensuing year's field-work promises to be very heavy, for the surveys in the hands of the staff for settlement alone, inclusive of the subdivisions of some pastoral runs into small grazing-runs, amount to about a million acres, besides 210,000 acres of Native land, 338 square miles of minor triangulation, and 237 miles of road surveys. Of this, however, about 120,000 acres of settlement survey and over 100 miles of road survey is nearing completion. Full details of the foregoing, both as to position and extent, in relation to the several districts are given in the reports of the Chief Surveyors (Appendix I).

The above will undoubtedly be supplemented by surveys of other land to be thrown open for selection during the year, and numerous duties that the surveyors are invariably required to perform other than purely settlement-work.

In addition, the Department will be called upon to undertake the control of the surveys, whether by contract or otherwise, of Native land that will be set apart for settlement on the recommendations of the Native Land Commission.

The extension of the standard survey of cities and boroughs and their suburbs is very greatly needed, more particularly in the large centres, especially so in Auckland and Wellington, where so much subdivision has taken place in the environs. This is important owing to the fact that the land is now closely built upon and has vastly increased in value; as a consequence, the State's risk and responsibility has become greater, the titles being under the Land Transfer Act, so that, if at all possible, some of the work should be taken in hand during the ensuing year.

From the foregoing it is evident that the field staff will need strengthening to cope with the work required to be done.

SURVEYORS' BOARD.

The Surveyors' Board constituted under the Surveyors' Institute and Board of Examiners Act, of which the Surveyor-General was Chairman, held eleven meetings during the year, and, in conjunction with the Australian Boards, conducted two examinations.

At the September examination two candidates passed with credit, obtaining over 80 per cent. of marks, and three completed their examinations. At the second, in March last, six more completed their examinations, to all of whom licenses have been issued.

The Board also, under the provisions of the Act, issued licenses to four surveyors who held qualifications before the Board was constituted, and letters of recommendation to the Australian Boards were issued to two of the New Zealand licensed surveyors.

The list of surveyors to whom licenses have been issued under the Act by the Board now numbers 434.

Amended "Examination Regulations," approved by the Governor in Council, were issued and published in the *New Zealand Gazette* of the 11th March last.

A Conference of the Australian and New Zealand Surveyors' Boards was held in Sydney in April of last year, at which this Board was represented by the Hon. G. F. Richardson. One of the most important subjects discussed was the proposed Surveyors' Imperial Diploma, and to the Conference Recess Committee was delegated the authority of making preliminary arrangements with Great Britain and its oversea possessions.

MAGNETIC OBSERVATORY.

Throughout the year the work of the observatory has proceeded successfully. The Adie magnetograph and the Milne seismograph have been kept in constant operation. The latter instrument recorded forty-six earthquakes for the period, a much smaller number than has been previously recorded for a similar period.

It would be desirable to have additional apparatus provided for the seismograph, in order to secure a more open time-scale for its records, which would bring us into line with other observatories in this respect.

Substantial progress has been made with the tabulation of the hourly values of the magnetic elements.

Copies of the more remarkable seismograms and magnetograms are given with Mr. Skey's report (Appendix II).

In extension of the magnetic survey, further field observations were made last December at eleven stations in the West Coast Sounds, and the Marine Department has been advised of the correct value thus found for the "variation of the compass" off that coast, and observations have now been made at 309 stations in the Dominion.

The year was remarkable for the successful work of Lieutenant Shackleton's Antarctic Expedition, which returned to Lyttelton in March last. Besides the success of himself and party in getting within so short a distance of the South Pole, another party, with Professor David, of the Sydney University, and Mr. Mawson, of the Adelaide University, reached the South Magnetic Pole. The dip circle used by them in locating the position was verified at the Christchurch Observatory on their return.

SECULAR MOVEMENT OF NEW ZEALAND COAST.

In last year's report mention was made of the intention to have the zeros of the tide-gauges in the various parts of the Dominion connected by levelling to bench-marks in secure positions on the shore, so that the mean sea-level of to-day could be referred to them, and thus enable investigators in years to come to determine with certainty whether there has been elevation or depression of the land, and, if so, in what degree. It was also therein pointed out that such a work had an important practical value as well as being of scientific interest.

Not so much has been accomplished as had been hoped for, as at most of the ports the gauges are of the fixed-board pattern, and what records there are are too imperfect to be of value for the purpose; but an interest has been aroused, and it is the intention of some of the harbour authorities who hitherto have not done so to adopt self-registering tide-gauges, and carry out continuous records.

However, the Harbour Boards of six ports where systematic records have been maintained have very kindly lent the gauge-charts and other information, from which mean sea-level has been deduced and referred to permanent marks. These are more fully dealt with in Appendix III, with explanatory diagrams.

The Wellington Harbour gauge-charts exhibit many instances of very pronounced seiche oscillations, much more so than at the other ports. A specimen diagram of these will also be found in the appendix.

It is found that, in cases of pronounced seiches in the Wellington Harbour, they are in the great majority of cases accompanied by a change of wind from north to south or *vice versa*, generally strong, and in one instance of five successive days of seiches the ~~seiche~~ changes took place several times. In the United States Coast and Geodetic Survey Report for 1907, page 477, there is an interesting reference to the seiche oscillations in Wellington Harbour, the conclusion arrived at being that the period of oscillations is twenty-eight minutes.

In conclusion, as this is the last annual report that I shall have the privilege of submitting, owing to my intended early retirement from the service, I desire to express my sincere thanks to all the officers, past and present, who have served with me from the time that I first became a Chief Surveyor, for

the invariable ready assistance and hearty co-operation received at their hands, which, together with the amicable relations that have existed between us, has helped to make my varied duties a constant pleasure.

Mr. W. D. B. Murray, Chief Draughtsman at the Head Office, reports as follows for the year 1908-9 :—

During the past year the following plans of towns have been drawn in this office : Kaikora North, Martinborough, Opotiki, Ross, Greymouth, and Rotorua Town District. Plans of these towns have been printed, including Manaia, Paeroa, and Waikouaiti.

There are also in the draughtsmen's hands, in a forward state, plans of Wanganui, Tauranga, Waipawa, Westport, and Hastings.

In course of publication are the towns of New Plymouth, Waipukurau, and Palmerston South, also the Counties of Buller, Inangahua, Kawhia, and Cheviot.

Republished, the Counties of Ohinemuri, Rodney, and No. 1 Tauranga.

Photo-litho. plans have been made showing magnetic stations in the North and South Islands ; six plans showing the rise and fall of the tides at Wellington, Lyttelton, and Timaru ; also a photo-litho. plan of the Hauraki Plains. Seventy-one electoral maps were made for Parliament, to replace those burnt ; map of the North Island showing the proposed districts for Native Judges, with descriptions.

Thirty-one survey districts were revised and forwarded to the Government Printer, and eight of these have been published.

Numerous maps have been prepared for other Departments, such as Defence, Education, Registrar-General, Internal Affairs, &c. ; also maps in connection with Waipoua Kauri Forest, and the triangulation of Canterbury, major and minor.

To enumerate all the miscellaneous duties performed by the draughting staff would be tedious, but I might mention—all field checks are recorded ; bands tested for staff and outside surveyors, 19 1-chain and 17 5-chain ; descriptions prepared in connection with Proclamations or otherwise. Sixteen plans were examined and fifty-six schedules were revised and amended for Bills going before Parliament.

During the past year 141 proposed township schemes, both Government and private, were submitted for the approval of His Excellency the Governor. A considerable amount of work is involved in connection with these, as they have to be carefully examined, and in many instances have to be returned to the surveyors to bring into accord with the requirements of the Act and Survey Regulations.

The number of tracings drawn during the year was 880. This is exclusive of tracings or plans drawn for photo-lithography.

Through the creation of five new counties in the North Island and one in the South, new county maps have been prepared and issued.

Of maps, lithographs, and tracings, 1,142 have been mounted by the office staff for office and outside requirements.

As this report is written on the eve of my severing connection with the Survey Department of the Dominion, after a continuous service of thirty-five years, during the last three of which I have acted as Chief Draughtsman in the Head Office, I take this opportunity of thanking the officers for the willing help and able assistance they have rendered me at all times when our duties have brought us together.

APPENDICES.

APPENDIX I.—SURVEYS.

AUCKLAND.

THE gross area of all classes of surveys completed this year was 225,729 acres, together with 81 miles of roads.

Minor Triangulation.—Mr. Wheeler completed 94,000 acres in the Bay of Islands County, the work being necessary for the subdivision of the Motatau No. 2 Block for the Tokerau Maori Land Board.

Rural and Suburban.—The surveys of 92,243 acres were completed during the year, the principal items being 20,981 acres by Mr. J. B. Thompson, of Te Akau Block, and the completion of the surveys of Selwyn Settlement; 18,870 acres by Mr. A. G. Allom, of Waiawa Block, Opotiki County; 13,529 acres by Mr. P. W. Barlow, of Tahora Block, Opotiki County; and 11,292 acres by Mr. A. L. Foster, of Tautari Settlement (contract survey), West Taupo County.

Native Land Court Surveys.—The total area surveyed during the year was 131,320 acres, subdivided into 193 subdivisions. Of this area, 36,030 acres were surveyed by staff surveyors, including 34,855 acres by Mr. W. J. Wheeler for the Tokerau Maori Land Board for leasing. The survey of this block (Motatau No. 2 Block) was discontinued under instructions from Head Office, and the Tokerau Maori Land Board are now completing the work by contract.

Standard Survey.—Mr. J. Langmuir, assisted by Mr. H. M. Kensington, completed the field-work of the Standard Survey of the City of Auckland, and part of the Borough of Devonport. Mr. H. M. Kensington is at present engaged on the standard survey of Rotorua Town. Mr. J. B. Thompson has also completed in the field a considerable portion of the standard survey of the Borough of Hamilton.

Other Work.—Under this heading many and various duties are included distinct from the actual cost of subdivisional surveys, comprising small surveys for school and cemetery sites, &c., renewing trig. points and standard blocks, reports on grass-seed areas, valuation reports, defining old boundaries, road-deviations, reports on drainage, &c.

Inspection of Surveys.—Mr. J. Langmuir made 4 inspections. Mr. W. J. Wheeler made 20 inspections, Mr. H. D. M. Haszard made 16 inspections, and Mr. R. S. Galbraith made 14 inspections. Some of the surveys inspected were fully up to the required standard, but I regret to say that in some cases the work inspected proved to be very unsatisfactory.

Land Transfer.—380 plans were received, and 334 were examined and approved, comprising an area of 107,765 acres. 109 plans were recorded; but there are still 630 plans approved but not recorded. Mr. H. D. McKellar has been appointed as Land Transfer Draughtsman *vice* Mr. J. R. Vaile transferred.

There were 2,889 plans indorsed on leases and Native Land Court orders, and 2,220 plans were indorsed on certificates of title.

Proposed Operations.—The field operations will comprise about 102,602 acres of ordinary rural-settlement work, and in addition to that area there is 19,513 acres being surveyed for the Tokerau Maori Land Board, and about 40,000 acres of Native land near Rotorua which is being surveyed to carry out the recommendations of the Native Land Commission. The localities of the various larger areas in the above total are as follow: 7,316 acres, Puniu Survey District; 3,600 acres, Pirongia and Kawhia South Survey Districts; 20,000 acres, Urutawa Survey District; 6,335 acres, Waoku and Hokianga; 3,000 acres, Rotoiti and Rotorua; 4,480 acres, Rotorua; 2,000 acres, Takahue; 5,500 acres, Hukerenui; 3,000 acres, Mangaorongo; 12,000 acres, Waihi South (to be opened as "unsurveyed").

Office-work.—Examination of plans: During the year 379 plans were examined and passed, covering an area of 247,357 acres, in 715 sections. These include 73 settlement plans, of 151,184 acres, in 392 sections; 60 Native Land Court plans, of 91,133 acres, in 164 subdivisions; 72 gold-mining plans, of 4,998 acres; 44 plans of residence and business sites, of 42 acres, in 87 sections; 130 plans of roads (taken and closed). Railways and reserves were examined and passed, having a length of 66 miles of roads taken, $21\frac{1}{4}$ miles of roads closed, and $45\frac{1}{4}$ miles of railway. 1,374 tracings were made for posters, surveyors, settlers, and others. The total number of plans of all classes of surveys, including Land Transfer, which have been examined and passed is 713, comprising 355,122 acres, $87\frac{1}{2}$ miles of roads, and $45\frac{1}{2}$ miles of railways. Five Native Land Courts were attended, £351 5s. collected on 40 blocks for survey charges, and 3,990 acres 3 roods 24 perches has been awarded to the Crown in satisfaction of survey liens amounting to £1,080 11s., in 34 blocks. 159 applications for authority to survey Native blocks were forwarded to Head Office, and 151 authorities were issued. Three examinations for "surveyors' unlicensed assistants" were held; 17 candidates passed, and 4 others also qualified, as they had partially passed the Licensed Surveyors' Examination. Authority has been given to 19 licensed surveyors to employ assistants. 203 chain lengths of steel measuring-bands were tested by Mr. T. K. Thompson for various surveyors and instrument-makers. There were 15 applications made to Head Office for Government loans of a total amount of £16,493, over an area of 54,544 acres.

Accounts.—The number of vouchers passed through the books during the year amounted to 2,154, representing an expenditure of £44,259 5s. 3d. On the Chief Draughtsman's Imprest Account 974 vouchers requiring payment were made by 1,549 cheques, totalling £12,700, and the amount imprested by the Paymaster-General was £12,700. Accountant, 345 vouchers, 540 cheques, £4,770 14s. 11d.; the amount imprested by the Paymaster-General was £5,000. Official Account, 729 cheques, £10,868 14s. 8d. On Commissioner's imprest, 14 vouchers, 18 cheques, amount £1,616 10s. 7d., and amount imprested, £1,701.

Conclusion.—I have much pleasure in tendering to the field and office staffs of the Survey Branch my thanks and appreciation of their ungrudging assistance in carrying on the work at all times and under all circumstances.

JOHN STRAUCHON,
Chief Surveyor.

HAWKE'S BAY.

Minor Triangulation.—The only work of this class returned this year is an area of 9,580 acres, executed by Mr. Thomas Brook, District Surveyor, in connection with his survey of the settlement lands in the Piripiri Block, near Dannevirke.

Standard Surveys.—There has been no work carried out of this nature, but preliminary action has been approved for the establishment of a 5-chain standard at Gisborne, and the District Surveyor has authority to carry out the work. It is proposed to lay a similar one down at Napier at an early date.

Rural and Suburban.—Under this head there are 11,446 acres, divided into 93 sections, at an average cost of 2-35s. per acre, in addition to which the field-work has been completed of 32,672 acres, but the plans have not yet been handed in. Of this Mr. Cagney carried out the subdivisational survey of the Crown portion of the Waimarama Block, with a total area of 10,000 acres, and Mr. Farnie surveyed 11,623 acres of Crown lands in the Waipaoa Block. Mr. Roddick has nearly finished some 13,000 acres out of Pastoral Run No. 47, Ngatapa District, which is to be offered for selection under the optional system.

Native Land Surveys.—These comprise 35,605 acres, divided into 57 lots, and the cost averages 8-72d. per acre. Of this area Messrs. Wilson, Walshe, and Cagney return 30,162 acres, which represents the Waipuka, Okaihau, and Waimarama Blocks; the balance of 5,443 acres was surveyed by Messrs. H. Baker and W. O'Ryan (licensed surveyors), and represents areas at Pukekura (Hawke's Bay) and Tapuwaeroa (Poverty Bay) respectively. Mr. T. W. Hughes has nearly completed the survey of subdivisions of the Mohaka Blocks, embracing a total area of 24,726 acres.

Road Surveys.—Some 34 miles of roads have been laid off by Messrs. Brook, Wilson, Walshe, and Roddick respectively, at an average cost of £12-97 per mile.

Other Work.—This comprises miscellaneous surveys and inspections.

Inspections.—District Surveyor T. N. Brodrick has made 10 field inspections of various private surveyors' work; and District Surveyor Brook has made 1; the reports of which were of a satisfactory character.

Proposed Operations, 1909-10.—The following surveys are in progress: viz., 4,400 acres in the Tamaki Block, by Mr. Brook; 13,000 acres (part of Pastoral Run No. 47, Ngatapa Survey District), by Mr. Roddick; 7,750 acres in the Tutamoe District, by Mr. Farnie; and 8,400 acres (withdrawn from the Ruahine Forest Reserve), by Mr. L. W. Ward. In addition, there will probably be the subdivision of country recently held under Pastoral Licenses Nos. 13 and 14, Kaweka and Pohui Survey Districts, with an area of some 35,000 acres, in connection with which about 2,700 acres of freehold lands adjacent have to be defined in order to give titles thereto.

Office-work.—Mr. H. G. Price, the Chief Draughtsman, reports as follows: "During the year 353 plans have been examined and approved, representing an area of 217,089 acres. These, divided up in their several classes, are as follow: Land Transfer, 209 plans, 1,200 lots, with an area of 78,274 acres; 50 Native Land Court plans, 246 lots, with an area of 101,172 acres; 68 Public Works plans, 239 lots, with an area of 916 acres; 19 departmental plans, 66 lots, with an area of 36,528 acres; and 7 road plans, with an area of 199 acres. In addition to the above, 574 instruments of title, such as transfers, leases, mortgages, have been examined and reported on, and 470 tracings were prepared for settlers, local bodies, surveyors, &c. The Native Land Court plans of the Waimarama Block, 44 subdivisions, comprising over 30,000 acres, and tracings of same, were also prepared and completed by the office staff—the calculations and adjustments of areas in connection therewith entailing a considerable amount of work. Several new record plans and block-sheets have been made, and old ones brought up to date; tracings have been prepared for photo-lithography of Hastings and Waipawa Boroughs and Waipukurau Town District, besides a number of others for sale-posters; 180 plans have been mounted and prepared."

In conclusion, as I am myself retiring from the position of Chief Surveyor, I desire to place on record my sincere thanks to all the officers of the Department I have been associated with for the ready and valuable assistance they have at all times rendered me, and in parting with them I desire to wish them one and all every success in their future careers.

HENRY TRENT,
Chief Surveyor.

TARANAKI.

The gross area surveyed during the year under the various headings represents a total of 72,133 acres, together with 16-53 miles of road and railway and 48-55 miles of boundary survey.

Minor Triangulation.—An area of 43,000 acres has been triangulated, and plans completed of same, by Messrs. Bullard and Laing, in the Tangitu, Taurakawa, and Momohaki Districts, at an average cost of 1-4d. per acre.

Rural and Suburban.—The operations in this class amount to 22,955 acres, in 69 sections, at an average cost of 3·25s. per acre, all of which is in rough forest country. Of this, 5,300 acres consists of final survey of provisional work.

Town Sectional Survey.—This consists of 95 allotments, of an area of 59·5 acres, in the Mangaroa and Matire Townships.

Native Land Court.—Surveys executed during the year by staff surveyors comprised 2,260 acres, in 2 subdivisions, and by private surveyors 7,342 acres 2 roods 15 perches, in 3 subdivisions. An area of 6,119 acres has been subdivided into 8 sections by staff surveyors, at an average cost of 16·65d. per acre; also boundary surveys to the extent of 48·55 miles were completed.

Roads and Railway.—In this class, 12·17 miles were surveyed by staff surveyors at an average cost of £16·30 per mile, and 4·36 miles under contract at a cost of £22·51 per mile.

Inspections.—The usual inspections have been made over staff and private surveyors' work, with most satisfactory results.

Other Work.—The expenditure under this head amounts to £2,574 18s. 6d., made up of costs against boundary surveys of Whakaihawaka Block—an extremely rough and difficult piece of work—and survey for Maori land settlement, cost of which will in part be recoverable from the Native owners; also road exploration and grading in Tangitu and Omara Districts; Mangaroa Town drainage; general miscellaneous work in the field; plans and reports on various subjects; and a variety of other matters.

Land Transfer.—There were 118 plans, with 197 traverse sheets, checked and approved, comprising 748 sections and subdivisions, of an area of 8,392 acres and 10·45 perches.

Titles.—The plans placed on instruments of title of all kinds, including Native Land Court orders, were 1,444, and 441 copies of leases and licenses were prepared.

OFFICE-WORK.

Examination of Plans.—The total number of plans checked during the year in the ordinary Survey Branch was 91, with 425 traverse sheets, comprising 217 sections, of a total area of 137,496 acres and 12 perches, and 94 miles 46 chains of roads taken and closed, and railway-land plans. Of these, settlement survey represents 21 plans, containing 133 subdivisions, of a total area of 66,247 acres; trigonometrical, 4 plans, containing 61,000 acres; 31 plans, defining 87 miles 66 chains, of roads taken and closed; 4 plans, of 6 miles 60 chains, of railway-land plans; 5 Native Land Court plans, containing 5 subdivisions, of 9,602 acres 2 roods 15 perches; 22 miscellaneous plans, of 14 subdivisions, and 426 acres and 4 perches; 3 plans, compiled in office, of 205 acres 1 rood 28 perches; and one township plan, of 15 acres and 5 perches, in 63 sections.

Miscellaneous.—The usual demands made on the office staff were attended to. These comprise supplying information to the general public, data to the staff for execution of surveys, information for local bodies and other Departments, &c. Two hundred and five tracings were made for the Valuer-General, ninety-five for Crown selectors. Six block-sheets were compiled, and all recording on block-sheets, record, reserve, and other maps, has been kept up to date. Eight tracings for photo-lithography were compiled, and twenty-five authorities for survey of Native lands were dealt with.

Proposed Operations for 1909-10.—A staff of one permanent surveyor (with cadet) and six temporary ones are at present engaged in different parts of the district on sectional work, covering an area of 81,000 acres, more or less, in Tangitu, Piopiotea West, Ohura, Mahoe, Omara, and Taurakawa Survey Districts. These lands lie in close proximity to the Main Trunk Railway, and in the valley of the Wanganui River. Three small grazing-runs in the Opaku District will require resurvey at an early date, before being reoffered for leasing.

FRANCIS SIMPSON,
Chief Surveyor.

WELLINGTON.

Triangulation.—Although no actual triangulation surveys in their usual acceptance have been undertaken this year, a most important start has been made at the reduction of the primary triangulation of the entire North Island by the selection of an excellent eight-mile base-line by Mr. Lowe, and is now under measurement by Messrs. Langmuir and Lowe preparatory to its subsequent extension by major triangulation as an accurate standard of length.

Topographical.—The only work coming under this head is Mr. Strachan's survey of the Wairarapa Lakes at different levels, covering some 15,300 acres.

Rural and Suburban.—The gross area under this heading, of which the field staff has sent in plans during the year, is about 67,940 acres, exclusive of small odd surveys. Of this area some 66,385 acres were intended for ordinary settlement purposes, and 1,555 acres represent scenery reserves. The principal items in the former area are Mr. Roberts's survey of Te Tuhi, Ahu Ahu, and Puketotara Blocks (Ngamatea District), and the survey of the Rautiti Block (Whirinaki and Manganui Districts) by Messrs. Girdlestone and Stewart. The survey of one land-for-settlements block, the Carrington Estate, was executed by Mr. Strachan, whose survey of the Wairarapa Lakes foreshore renders about 5,500 acres available for disposal by the Land Board in such manner as seems best in the interests of settlement. Mr. Stevenson surveyed 14,338 acres for selection purposes in the Morikau No. 2 Block; but this area is not Crown land, but Native under the administration of the Aotea Maori Council, and the cost of survey is recoverable as a lien. The Kaitieke Block, Crown lands selected before survey, has now been in great part surveyed by Messrs. Thompson and Campbell, so that leases may issue and selectors obtain possession by definite boundaries. Mr. District Surveyor Greville is making good headway with the Rangitatau Block in the Waitotara Valley, which will be the means of placing about 10,300 acres in the market in smaller farms than was originally intended.

Town Surveys.—Eighty-five acres have been subdivided into 252 lots, the principal items being township sections in the Pitt Settlement and Rangataua Township.

Native Land Court Surveys.—Surveys for the Aotea Maori Land Board, of two blocks, were carried out by Mr. Stevenson, and there were also 35 Native Land Court blocks surveyed by private surveyors, the total area being 35,044 acres, in 141 subdivisions. Although the cost of this class of work falls on the parties interested, still the Department has to supervise field and office work in the same manner as if done by our own staff; indeed, surveys of this kind as a rule give more trouble than those more directly under departmental control.

Roads, Railways, &c.—Little of this work outside of that forming part of settlement surveys has been undertaken. Mr. Johnston's special survey of fourteen miles for the Main Trunk Railway line being the principal. The average cost per mile, £17·9 for the 25½ miles returned, is not excessive.

Other Work.—A number of various duties are included under this head, distinct from the actual subdivisional surveys, comprising small surveys for other Departments, repairing and replacing trig. stations, standard blocks, redefining old boundaries, timber estimates, small road-alterations, &c., the character of which prevents their being returned under the usual headings. All are very necessary, and attending to them often interferes with our surveyors' duties to a far greater extent than the sums set against each represents.

Inspections.—Mr. Climie inspected 42 surveys during the year, being 31 Land Transfer (cost of which is recoverable) and 11 staff. The work done by surveyors generally maintains a high standard of excellence, often under adverse conditions; the work of one or two surveyors, however, was not found so satisfactory as might have been desired; but this in no way detracts from the good results of our staff and private surveyors, as evidenced by practical tests in the field by the Inspector.

Proposed Operations, 1909-10.—A staff of eleven surveyors is at present engaged in different parts of the district, and has an area of some 137,500 acres of subdivisional surveys in hand, consisting chiefly of bush land adapted for pastoral or mixed purposes, in areas suitable to the character of the lands in the various localities. Mr. Stevenson has the completion of the Whaharangi Block, Native land, Retaruke District, of about 27,000 acres, under his charge, for settlement under the Aotea District Maori Land Board. Mr. Girdlestone is undertaking the survey of the Riariaki Block, Crown land, about 24,000 acres, in the South Waimarino, Manganui District; whilst Mr. Stewart has the Mangatiti Block, of Crown land, comprising about 16,000 acres, in the South Waimarino, Whirinaki District, in hand. Mr. Johnston has the survey of 15 miles of the North Island Main Trunk Railway necessary for the land plans, and about 20 miles of service road for the Public Works Department; and 7,000 acres of scenery reserves. Mr. Campbell has completion for settlement purposes of about 9,000 acres of the Kaitieke Block, Kaitieke District, in view. Mr. Mountfort has the subdivision of Uriwera and Otiranui Blocks, about 16,400 acres, to determine the Crown awards. Mr. Roberts has the completion of the Te Tuhi, Ahu Ahu, and Puketotara Blocks, 14,500 acres; and Mr. Greville has an area of 10,275 acres in the Rangitatau Block, settlement survey, in hand. A considerable area of the above lands is completed in field, but not yet mapped, and as soon as the winter sets in the surveyors will come into the office to overtake arrears in their mapping.

OFFICE-WORK.

Examination of Plans.—During the year 151 plans of sectional and Native surveys, containing 100,686 acres, were received, and 123 finally approved. Ninety-two statutory plans were received, 88 approved, and 130 recorded; 123 were examined, and 71 sent out for proclamation.

Compilations.—Twenty-three drawings and tracings were prepared for photo-lithography, and 8 new Crown-grant maps were compiled, also 1 new trig. map; whilst all approved new work coming from the field was placed on the standard maps of the office, as well as all Crown titles being recorded.

Native Land Court Work.—The time of one officer and assistant is fully occupied in attendances at the sittings of the Court, and supervision of the office-work connected therewith. Sixty-seven nominations for survey were received and 23 authorities issued. Twenty-five applications for survey liens and 485 for land in lieu of lien were put through. Survey liens with interest paid amounted to £1,317 17s. 10d.; while orders vesting 750 acres in lieu of liens were made. Titles, orders, and other instruments to the number of 973 were indorsed with plans, and many other incidental matters were dealt with, including compilation of plans of 2,020 acres in four different blocks.

Land Transfer Office (Survey Branch).—There were 394 plans passed, an increase of 34 over last year, which does not include plans indorsed on transfers, &c., all of which have to be examined. Twenty-four Land Transfer plans and tracings have been mounted and repaired. The year has been a very busy one for this branch, and Mr. Mackay, Land Transfer Draughtsman, and his assistants have had their hands full; one reason being that plans of surveys of areas made early in the year are only now to hand.

Titles.—There were 3,732 deeds and other instruments passed, showing an increase of 562 over last year; 76 single and 2,173 plans in duplicate were placed on certificates of title, being a decrease of 112 as compared with last year. Of Crown leases, &c., a total number of 1,631 copies were prepared, either in duplicate, triplicate, or quadruplicate.

Miscellaneous.—The usual demands were attended to by the office staff. These comprised supplying information to the public generally, data for the execution of surveys by staff surveyors and others. Ninety-seven tracings, 3 general plans, 43 sale-plans, 140 lithos, 97 applications, and 8 plans were remounted or repaired, and a multitude of other duties performed.

In conclusion, I have to thank all the officers for the assistance rendered to me whilst I have been in charge of this district. To the outside licensed surveyors my thanks are also due for their co-operation in the various professional matters in which during the year I have been associated with them.

JAMES MACKENZIE.

Chief Surveyor.

NELSON.

Minor Triangulation.—The area of 8,800 acres returned for this class of work, at a cost of 2·6d. per acre, consists of extensions of subsidiary triangulation to control sectional surveys.

Topographical.—An area of 38,052 acres was returned under this heading; all this area, with the exception of 500 acres, is provisional survey, executed to enable a scheme of subdivision to be prepared for selection before final survey: this work cost 4·07d. per acre.

Rural and Suburban.—The area returned under this heading is 39,374 acres, in 134 sections, costing 2·55s. per acre; 14,564 acres of this area is situated in the Maruia North Block in fairly large sections; the remainder being principally in scattered applications. The work was situated in rough, hilly, heavy forest, and in some cases was only accessible by rough bush walking-tracks.

Gold-mining Surveys.—Only 3 surveys were executed by a staff officer, 184 acres, at a cost of 3·1s. per acre; 8 surveys of this class were executed by private surveyors, containing 2,551 acres.

Roads, &c., 13 Miles.—These consist of short lengths of roads in various localities, to give access to Crown lands opened for selection.

Other Duties.—The work in this class comprises various duties which do not come under any of the headings in the general return, and consist of general office-work at Reefton and Westport, field inspections, minor surveys, valuations, reports, and work executed for other Departments.

Field Inspections.—Owing to the urgency of settlement survey, it has been very difficult to spare an officer to attend to this work. Only 4 inspections have been made during the year, 2 of gold-mining surveys executed by private surveyors, 1 of D'Urville Island survey, and 1 of the Big Bush contract: the reports were satisfactory, and details with diagrams have been supplied. Field inspections should be made more frequently, not only to test the accuracy of the work, but to ascertain if the field-work is being carried on with diligence. It has been impossible for me to leave my office duties to attend to this work to a sufficient extent, and, owing to the large amount of settlement survey on hand, it has been extremely difficult to spare the services of a staff surveyor; also, more inspections should be made of the field-work of contract and Land Transfer surveys.

Proposed Operations for 1909-10.—Owing to the early retirement of Messrs. Montgomerie and Snodgrass, District Surveyors in charge of the Reefton and Westport offices respectively, the services of an extra surveyor will be required, as recommended in the estimates for this year. The arrears in the Westport District amount to approximately 12,000 acres, chiefly in the Kongahu and Oparara Districts; but the arrears in Reefton are small, and can be undertaken as opportunity offers. Mr. Carkeek, District Surveyor, proposes to complete the trig. and coastal survey of D'Urville Island by July, and it will then be necessary to define the subdivisions. I made a field inspection of this survey, and reported fully on the too-elaborate method adopted of defining the coast by a continuous coastal traverse. Mr. Thomson, District Surveyor, is engaged on scattered applications, containing 4,540 acres, in the Motueka, Kaiteriteri, and Mount Arthur Districts. Mr. Maitland, District Surveyor, after completing survey of 2,320 acres in hand in Waitapu District, will undertake the survey of selections in the Mount Arthur Survey District. He has 5,820 acres on his instructions. Mr. Cumine is now engaged on the survey of 6,616 acres of selections in the southern portion of the Mid-Maruia Block. Mr. Irvine is engaged on the survey of 2,150 acres in the Tadmor District, and after the completion of this block will be employed on the survey of 7,565 acres in the Dart Block, also situated in the Tadmor Survey District. Mr. Fairhall has the trig. and sectional survey of Braeburn Settlement, containing 18,000 acres, in hand; the triangulation is in progress, and about 5,000 acres of sectional survey completed in field. Mr. Springall is employed on the trig. and sectional survey of the Owen and Owen East Blocks, and has an area of 11,380 acres on his instructions. 4,650 acres of the sectional survey is completed in the field, and also 14,000 acres of trig. survey, to control the above survey. Mr. James Stevenson, who began work in this district in December last, has instructions to execute the triangulation of approximately 100,000 acres in the Maruia, Rappahannock, Warwick, and Glenroy Valleys, to control the surveys of large areas selected in those localities. The work is absolutely necessary, as a basis for the sectional surveys. In order to have the triangulation being executed in the Maruia Valley, the Owen Blocks, and Braeburn Settlement in terms of the Imperial Standard, the main series of triangles has been recomputed by polygons from a remeasurement of the Waimea base to the base near the Lyell. Allowing for the difference in length between the old Nelson Standard and the new Imperial, the closure was 1 link per mile on to the Lyell base. As time permits, the whole of the triangulation in the Collingwood and Nelson circuits is being recomputed through polygons in terms of the Imperial Standard. Closures have been worked out between bases measured at West Wanganui and Collingwood, and Collingwood and Waimea. The difference in closure from the West Wanganui on to Collingwood base is 0·65 of a link per mile, and between Collingwood and Waimea 0·5 of a link per mile. Mr. J. H. Buttress, an "authorised assistant," is employed on the survey of selections in the northern portion of the Mid-Maruia Block, containing 10,238 acres, of which 3,060 acres is completed in field. Mr. F. I. Ledger has just completed the field-work of the contract survey of Big Bush Block, 13,954 acres, and expects to return the plans by end of April. Mr. C. Lewis signed an agreement on the 16th March last to execute the survey of 5,250 acres in the Takaka Survey District, and has begun the work. The surveyors now employed have instructions to survey 91 applications, containing 39,427 acres. Of this area, approximately 12,820 acres, in 28 applications, is nearly completed in field. In addition to this there are 19 applications in the Big Bush Block, containing 13,954 acres, let by contract to Mr. Ledger, the field-work of which is just completed; also 4 applications, containing 5,250 acres, let to Mr. C. Lewis by contract on the 16th March ultimo. The survey of Braeburn Settlement, containing a total area of 18,063 acres, of which 9,934 acres has been taken up by 12 selectors, is also in hand, and 5,000 acres completed in field. The total number of applications allotted to surveyors, staff and contract, is 126, with an area of 68,565 acres. Of this area the survey of 31,774 acres, in 53 applications, is nearly completed in the field. The number of unallotted applications, including

those previously in the hands of Messrs. Montgomerie and Snodgrass, is 144, containing 65,335 acres. The blocks to be opened during the coming year comprise the Lee River Block Extension, 10,185 acres; the Wairoa Forks Block Extension, 8,320 acres; the Howard Block, 30,000 acres; the Anatoki Block, 4,400 acres; Extension Maruia North Block, 1,800 acres; and the Waimea Block, 5,000 acres: total, 59,705 acres.

Land Transfer Office.—Mr. Curtis, the Land Transfer Draughtsman, reports that 59 survey plans have been examined and passed, 46 examined and returned, 150 deeds passed and 398 diagrams placed on 198 certificates of title in duplicate, 100 plans drafted, and 298 plans examined and issued. Arrears, 27 certificates of title in duplicate.

OFFICE-WORK.

Seventy-four certificates of title in lieu of Crown Grants (in triplicate) were examined and issued, 315 tracings examined, 56 reports furnished, 7 survey plans and compiled plans examined, and 51 leases &c., for warrants examined. There are 13 certificates of title in lieu of Crown grants (in triplicate) to issue.

The drafting-work for the year includes examination of 61 plans, with an area of 46,500 acres, in 200 sections; mining surveys, 11 plans, 2,551 acres, in 30 sections; 17 road plans; 8 railway and 2 subsidiary triangulations: total number of plans, 99. Traverse sheets checked, 337.

Diagrams were placed on 121 Crown titles (by contract) in quadruplicate, 55 in triplicate, 46 in duplicate, and 4 singly; and on certificates of title in lieu of Crown grant, in triplicate, 74: total number of diagrams, 967. There are in arrear 21 Crown titles in quadruplicate and 7 in triplicate.

There were 5 plans drawn for photo-lithography of large blocks of land opened for settlement, as well as those reopened for disposal after surrenders, &c.

The office-work also included tracings and data for surveyors, rough tracings for settlers, for Valuation and other Departments.

A rough tracing of the Borough of Westport, to be redrawn for photo-lithography, has been prepared; also photo-litho tracings of several districts brought up to date for reproduction and for county maps; tracings for photo-lithography of the Collingwood and Takaka Counties are well in hand, and on the completion of these there only remains the Waimea County to be drawn. Several new selection-maps and a new map of Nelson City are required, but, owing to the urgency and volume of current work, have not yet been made. The safe register is not yet completed, the officer in charge of that work having to prepare all Crown grants for rebinding, also all the old traverse-reductions for the same purpose, and a great deal of time is taken up in looking up and attending to plans for the use of officers. Now that the Crown grants and traverse-reductions are all rebound, this work should soon be completed.

ROBT. T. SADD,
Chief Surveyor.

MARLBOROUGH.

No triangulation or topographical surveys have been completed during the period, but a little reobservation has been done by me on the lower Wairau plans—used for fixing standard points upon which to base Land Transfer work—also a few triangles to check settlement work as it proceeds; but none of it covers new ground. A small topographical survey has also been made, but not large enough to tabulate; another work of this kind is now being undertaken in the Wakamarina Valley.

Rural and Suburban Surveys.—19,579 acres have been completed at an average cost of 1-76s. per acre. As nearly all of this work is in broken bush country, with many old surveys to re-establish, the result has been much better than I anticipated. In the case of the survey of 270 acres costing 12-3s. per acre: this consists of 13 small scenic reserves laid off on the Mangamaunu Native Reserve, near Kaikoura, and was rendered costly because the lines had to be gone over again with a view of inflicting as little damage as possible on the adjoining landholders.

Road and Railway Surveys, &c.—Out of the 46-76 miles of roads completed this year, 11-38 miles are standard traverse of roads and streets in and about Blenheim; and of the balance, 30 miles have been done by Mr. A. P. Seymour in the Pelorus Sound. This work is rendered very costly by the quantity of small and intricate boundaries to be picked up, and the generally tortuous nature of the lines.

Other Work.—Under this heading is included the sum of £247 11s., being the wages paid to survey parties while they were engaged in grass-seed sowing on the burnt Crown-forest lands last year. This will be included in the value of the land when offered for sale. Also £124, being the cost of standard marks in the Town of Picton. Out of the £203 9s. 6d., work done by self and staff, the sum of £159 5s. has been recovered for survey of sawmilling areas. The work not completed in the hands of the field staff at the end of March is valued at £831 5s. 2d., and is carried forward to next year's charges.

The proposed operations for the coming year are: Mr. A. P. Seymour to continue the survey of applications in the Pelorus Sound District, and make surveys of roads to legalise them; owing to the delay in completing these, many titles cannot be issued. Mr. Wicks and Mr. Hodgkinson will proceed with the subdivision of about 20,000 acres of bush land at the head of the Wakamarina Valley, and several applications in the vicinity.

F. STEPHENSON SMITH,
Chief Surveyor.

WESTLAND.

Topographical Survey amounts to 32,600 acres. This class of work was undertaken to enable the rural sections to be best defined. Much information is necessary to locate the different interests incidental to the timber and mining industries, requiring a more detailed survey than would ordinarily be required.

Rural and Suburban Surveys cover an area of 33,444 acres of rural sections, and selections under the regulations in a mining district. Residence areas have caused a deal of trouble, as there was no previous survey to locate them, and it is only when the contiguous land is being divided that the areas then become known. The system of granting the residence areas under the mining conditions is causing overlap and endless complications. No attempt was made to provide road access, and now, when good houses are being built, the road problem is rather difficult to adjust.

Mining Survey.—Seven plans by private surveyors, of an area of 575 acres, have been checked.

Town Section Survey.—Three small townships have been laid off, two of which are to provide building-areas for miners engaged in the coal industry. Sections in the Town of Hokitika have been pegged off ready for sale.

Other Work includes incomplete surveys, rural selection, and topographical.

Proposed Operations for 1909-10.—The field-work for the coming year will be the survey of the lands up the Grey Valley that hitherto have been locked up by the sawmilling and mining interests. blocks in Kopara, Haupiri, Brunner, Hohonu, Waimea, and Kanieri Survey Districts. In the southern part of the district, areas in Wataroa, Waiho, and Poerua Survey Districts that have long been waiting to be put in hand will be undertaken. The urgency of the settlement surveys has kept the limited staff so fully engaged that little standard work has been done. Around Greymouth and Cobden so many subdivisions for building purposes have been made that the urgency of a standard survey along many of the new streets is apparent, if only to provide points for the private surveyors to close on to, and in the coming season it is to be hoped this work can be undertaken.

Office-work.—One hundred and four plans have been received, 27 of which were Land Transfer, 7 Mining, and 5 Public Works; checking has been kept well up to date; 846 plans have been placed on titles, of which Land Transfer have required 153; 531 tracings supplied for general returns and information; 8 block, 12 application, 3 run maps have been made, with 15 tracings prepared for photo-lithography; Crown-grant maps continued. For the ensuing year, the long-standing Land Transfer index and other maps will be put in hand.

My cordial thanks are due to the various officers, field and staff, who have so willingly and assiduously carried out their several duties.

G. J. ROBERTS,

Chief Surveyor.

CANTERBURY.

Rural and Suburban.—The total completed work under this heading is 30,882 acres, subdivided into 64 sections, at a total cost of £849 1s. 1d., or 0.55s. per acre. District Surveyor McClure subdivided the Culverden Estate, 25,829 acres, at a cost of £563 12s.; and Reserve 79, Christchurch District, 303 acres, at a cost of £12 12s.; making a total area of 26,132 acres subdivided into 48 sections at a total cost of £576 4s., or 0.44s. per acre. District Surveyor Allom subdivided 2,725 acres in the Lyndon District into 8 sections; surveyed 3 sections, containing 1,994 acres, in the Four Peaks and Acland Districts, and 5 small reserves in the Lyndon, Akaroa, and Okain's Districts; making a total of 4,750 acres subdivided into 16 sections at a total cost of £272 17s. 1d., or 1.15s. per acre. Work completed in the field, but which cannot be returned owing to the plans not being finished, includes reserves on the Pareora River, Reserve 2,166 Akaroa, various small reserves at Hanmer, and workers' dwellings sites in the Walker Settlement at Addington.

Town Surveys.—The only survey of this class was the pegging of 41 sections in the Culverden Township by District Surveyor Allom at a cost of £56 19s. 2d., or 27.8s. per section.

Road Surveys.—Under this heading 1.93 miles are returned at a total cost of £40, or £20.72 per mile. This work was done under contract by Mr. L. Webb, and consisted of the grading and surveying of the continuation of King Edward VII Drive along the summit of the Port Hills, eastward from Dyer's Pass through the Cashmere Estate. Mr. Allom graded and surveyed 41 chains through the Kennedy's Bush Reserve, but, as the plans are not completed, this work is carried forward to next year.

Field Inspections.—During the year District Surveyor Allom inspected 8 Land Transfer surveys by private surveyors, with satisfactory results.

Other Work.—Included under this heading is £656 15s., the cost of 18½ miles of the standard survey of part of Timaru completed by District Surveyor McClure, and £135 11s. 3d., the cost of the 8 field inspections made by District Surveyor Allom; also that of the survey of Pastoral Runs Nos. 61A and 62A, comprising 16,350 acres, by Mr. F. W. Freeman, contract surveyor, at a cost of £301, for disposal under "The Canterbury Agricultural College Reserves Act, 1905."

Proposed Operations for 1909-10.—Mr. Allom has the plans of various small surveys to complete, and will then survey 214 acres in connection with the proposed acquisition by exchange of a scenic area at "Sharplin Falls," in Alford Forest. There is an exchange of 80 acres to be surveyed in the Gladstone District, Mackenzie County, but this is not urgent, and can be done when other surveys are required in the vicinity. It is probable that some of the pastoral runs the present leases of which will expire in 1911 will require subdivision; and this work, in addition to the survey of any lands purchased for settlement, and the proposed major triangulation, will be more than the present field staff can cope with.

Office-work.—During the year 26 plans of sectional work have been examined and approved, and 65 road and railway plans have been similarly dealt with. Photo-lithographic work done includes alterations to the tracings of the Ashley, Selwyn, Ashburton, Mackenzie, and Waitaki Counties, rendered necessary by the readjustment of the boundary of the Canterbury and Westland Land Districts; completed plans of the Culverden Township and Hurst Survey District; 1 tracing of the Cheviot County, and 10 of lands for disposal; and the original photo-lithographic plans of the Spaxton and Grey Survey Districts brought up to date. Other work done includes the completion of 7 survey plans of the Culverden Settlement, and 4 of the Timaru standard survey; 7 township plans prepared for the approval of His Excellency the Governor; 26 cards prepared showing real estate vested in the Post and Telegraph Department, a work which involved much searching of titles; the copying of

19 sheets of Lyttelton tide-gauge registers; 318 plans placed on Crown grants and other instruments of title; 49 certificates recorded on Crown-grant maps; and the numbering and indexing in the section-books of some 70 miscellaneous survey plans belonging to previous years. The record map of the Culverden Settlement is in an advanced state, and, in addition to the foregoing, a large amount of work was done in making working and miscellaneous tracings, tracings and descriptions for *Gazette* purposes, and compiling information for other Departments. Urgent necessary work that should be done includes the compilation of a record map of Hanmer, maps of Lyttelton Borough and of Greater Christchurch, and the completion of old and the preparation of new block-sheets.

Land Transfer Branch.—Mr. Leversedge reports that the work has been less than last year, which is partly accounted for by the examination of plans of all road-diversion and proclamation plans having been taken over by the Survey Office as from the 1st June last. The plans requiring the approval of His Excellency the Governor as townships are not now copied in the office, the original survey plans being submitted for His Excellency's signature. As there appears to be a considerable decrease in the work coming to us from the Land Transfer Office, I hope to be able shortly to put in hand the work of adding to and renewing the Land Transfer record plans, which have become very worn through the pressure of work during the last few years.

ERIC C. GOLD SMITH,
Chief Surveyor.

OTAGO.

Topographical Surveys.—The total area returned under this head consists of 27,550 acres of run-surveys executed by Mr. D. Innes Barron, being the subdivision of what is known as the Ormaglade Run into small grazing-runs. The average cost of this work was 3-4d. per acre.

Minor Triangulation.—Mr. W. T. Neill has completed the field-work of an area of 104,000 acres, being revision of the triangulation in the Otago Peninsula and North Harbour and Blueskin districts; but, as the plans are not yet completed, the work is not included in this year's returns.

Rural and Suburban.—The principal item under this head was the subdivision of an estate acquired during the year under the Land for Settlements Act (the estate is now known as Kauroo Hill Settlement, and is situated near Oamaru). The surveys were executed by Messrs. D. Innes Barron and J. A. Johnston, and comprised an area of 19,567 acres. Messrs. D. M. Calder and W. T. Neill have been engaged upon the subdivision and roading of the Barewood Run of 30,143 acres. Several small sections were surveyed by Messrs. Barron and Calder in different parts of the district, comprising in all 266 acres, and Mr. S. T. Burton, since he joined the Otago staff, has been engaged upon spotting surveys in various parts of the district, completing an area of 502 acres. The total area returned by the staff is 50,478 acres, at an average cost of 0-87s. per acre. An area of 1,745 acres of sectional work was surveyed for the Department by private surveyors during the year.

Town Surveys.—During the year an area of 19 acres 3 roods 10 perches of town survey in the Towns of Waipori and Ranfurly was carried out by Messrs. Barron and Calder.

Gold-mining Surveys.—These surveys, with one exception, were undertaken and executed by private surveyors for fees deposited by the applicants, the number of claims surveyed being 22, having an area of 1,293 acres, the cost of the surveys averaging 4-63s. per acre. Besides the surveys, several applications for surveyed land were reported on, and the accompanying tracings for the Warden duly checked and certified to, and vouchers prepared for the Receiver of Gold Revenue in favour of the inspecting surveyor.

Land Transfer Surveys.—During the year 81 plans, representing an area of 106,509 acres, were examined, passed, and recorded, and 60 applications to bring land under the Land Transfer Act were dealt with. Eight hundred and eighty certificates of title in duplicate were prepared, in addition to checking all dealings affecting portions of land in titles and proclamations, &c.

Office-work.—During the past year 35 plans, comprising an area of 65,846 acres, were received from the staff surveyors, and have all been examined, passed, and recorded. Seven railway-land plans in triplicate and 18 road-plans in duplicate, sent in by private surveyors, have been similarly dealt with. One estate was acquired under the Land for Settlements Act and surveyed during the year, aggregating an area of 19,567 acres. One new Land Transfer map and two Crown-grant record maps were constructed, and three Land Office maps were prepared. Diagrams were drawn on 78 certificates of title, 45 lease-in-perpetuity, 2 occupation licenses with right of purchase, 26 occupation leases, 53 renewable leases, 1 agricultural lease, 1 mining license, 6 Native partitions, 40 small grazing-runs, 8 pastoral licenses, and 154 miscellaneous licenses in duplicate or triplicate, making a total of 1,074 copies; 213 working-tracings for various purposes; 355 cloth and paper tracings showing land transactions were supplied to the Land Valuation Department. A plan was prepared for the Police Department, and plans of the following were drawn for photo-lithography: viz., Ohau Lake, Hedgehope, Maruwenua Survey Districts, and Kauroo Hill Settlement. Town of Waikouaiti, Ormaglade and Barewood Runs brought up to date, Silverpeak and Lammerlaw Survey Districts, Block IV Blackstone, Blocks V and VI Glenomaru District were drawn on transfer-paper for lithography and printed in this office. The District Road Surveyor's Office was supplied with maps of electoral districts, showing boundaries of counties, road districts, and boroughs, &c. The total number of maps printed was 1,009; mounted, 1,183; and books bound, 35. The work for the ensuing year will be the making of new Crown grant, Land Transfer, county, and road district maps. Many of the county maps have been waiting to be put in hand and brought up to date.

Proposed Operations for the Year.—All the surveyors will be fully employed for the year in carrying out the work in hand. This embraces 614,385 acres of small-grazing-run surveys—viz., Crown lands, 172,540 acres; and National Endowment, 441,845 acres.

The Staff.—As referred to in the Lands Report, the staff has been kept extremely busy during the year. All have done their best to keep abreast of the work, and deserve my thanks for the cheerful and satisfactory performance of their duties.

D. BARRON,
Chief Surveyor.

SOUTHLAND.

Minor Triangulation.—This consisted of one triangle, covering 6,975 acres, of which the angles were observed, and the calculation of sides based on results obtained, by Mr. Surveyor Macpherson last year.

Rural and Suburban.—20,194 acres are returned under this head. This area was subdivided into 113 sections at an average cost of 2.93s. per acre. This will be seen to be a higher rate than that returned for last year; but the explanation is that the greater part of the area is hilly, densely wooded country, a considerable portion of which had been milled over, rendering line-cutting very difficult; while in other parts the ground had been much cut up by sluicing operations, and was intersected by numerous water-races, involving a large amount of extra traversing. By the new regulations all boundary-lines of sections in bush country have to be cut and pegged. This cutting and pegging necessarily adds largely to the cost of section-work, probably 9d. to 1s. per acre, if the work is well done. A further reason for increased cost was frequent delays owing to bad weather. When everything is taken into consideration the cost per acre, 2.93s., which includes the selection and grading of roads, cannot be called high. 4,800 acres of the above area consisted of sawmill areas, mostly in rough bush country.

Town Surveys.—There was 1 survey of this class, comprised in 1 allotment of 3 acres, the cost of which was £6.

Gold-mining Surveys.—Special claims to the extent of 274 acres, comprising 4 allotments, were surveyed under this class, at an average cost per acre of 4.8s. On comparison with last year's figures, the cost will be seen to be higher. As usual, the surveys were made by private surveyors, the survey fees being deposited by applicants.

Roads, Railways, &c.—There was 1 survey of this class, 2.19 miles in length, of which the cost per mile was £32.75. This road is in broken country, and for half its length runs through heavy bush.

Other Work.—The total sum returned under this head is £2,423 7s. 8d. Of this amount only £183 9s. 8d. is strictly chargeable to "Other Work." The balance represents the amount expended on unfinished work, to be carried forward to next year.

Land Transfer Branch.—Mr. J. L. Dickie, Land Transfer Draughtsman, reports that 92 plans were examined and approved, containing 17,030 acres, and comprising 579 lots. Nine hundred and forty-seven diagrams were drawn on certificates of title, representing 456 in duplicate, 3 in triplicate, and 26 single. He also examined 22 leases and other instruments of title. During the first part of the year the amount of work put through was very much beyond the average, land transactions being very brisk; but during the last six months the work has slackened off considerably.

Office-work.—The Chief Draughtsman reports as follows: During the past year 63 plans, representing 11,217 acres, received from surveyors, have been examined; also 13 sheets of railway-land plans. In addition to these, a large amount of miscellaneous calculations was done. A lithographic drawing on a 40-chain scale was made of Invercargill Hundred to take the place of the old original drawing, which was obsolete and useless for the purpose of reproduction, and the original drawing of New River Hundred was revised and brought up to date. Lithographic drawings were also commenced of the Borough of Riverton and the suburban boroughs around Invercargill. A topographical plan was compiled of the interior districts in the north-western part of the land district on a scale of 80 chains to the inch. Some of these districts have never yet been lithographed, and when opportunity offers steps will be taken to have this done. New application maps were compiled of three districts, and 22 lithographic tracings were made for sale-plan purposes. Eight plans of townships were compiled, and forwarded for the Governor's approval. Twenty-four schedules in duplicate were prepared for local bodies' proposals for expenditure of "thirds," and 80 draft warrants for landless Natives were written and checked. The index-book of road-plans, mentioned in last year's report as having been commenced, has now been completed to date, and is found to be most serviceable. A new plan register is also partly compiled. Consequent upon the enlargement of the safe, the old system of portfolios for the storage of plans has been abolished, and sets of drawers, running on brass wheels, have been constructed. This involved a large amount of work in the rearranging and renumbering of plans; but the benefit of this is apparent in the saving of time which has been secured thereby in getting out plans. In connection with ascertaining the real estate possessed by the Postal Department, diagrams and other information were placed on 16 cards. Three plans were compiled showing proposed adjustment of street-frontages in East Invercargill. Seventy-six Land Transfer deposited plans were traced for the Valuation Office, and 339 miscellaneous and 242 working tracings were made for surveyors and others. Some 300 lithographs and plans were mounted.

Proposed Operations for 1909-10.—It is anticipated that surveyors Falkiner and Macpherson will be occupied during the ensuing year in cutting up the landless Natives' block, this work being much more troublesome than I had anticipated. Mr. Otway will complete the road-survey at Lake Hauroko, on which he is at present engaged, and will then take in hand a block of bush land for settlement near Otautau. Mr. Drury will finish his present work of laying off mining-districts-land-occupation and renewable-lease applications near Orepuki, and will probably thereafter cut up a block of 2,000 acres for settlement on the west bank of the Waiau River. These works, with probably some smaller surveys, which should be done by staff men, will keep these two surveyors employed all this year. As usual, mining surveys and surveys of sawmill areas will be made by private surveyors, and other works, such as scenic-reserve surveys and small "spotting" surveys, where urgently required, will be placed in their hands. There is a persistent demand that more bush lands (abandoned sawmill areas) shall be cut up for settlement, but with the present staff of surveyors the demand can only partially be met, and I should very much like to see the staff increased by one or two surveyors used to bush-work.

E. H. WILMOT,
Chief Surveyor.

APPENDIX II.

THE MAGNETIC OBSERVATORY AND THE MAGNETIC SURVEY.

DURING the year the routine work of the Observatory has been carried on in all its branches with success, and, in addition, a considerable amount of field-work was done in further extension of the magnetic survey.

THE MAGNETOGRAPHS.

These have operated satisfactorily throughout the year, and uninterrupted records of the magnetic declination, magnetic horizontal force, and vertical magnetic force have been obtained. The records obtained have been developed and annotated to date. The necessary absolute observations required to standardise the magnetograms were made at intervals, and considerable progress was achieved in the measurement and tabulation of hourly values of magnetic elements for previous years. These tables have been completed for the years, 1902, 1903, and 1904, and are being used in the application of corrections to the field observations. It may be mentioned that Dr. Chree has remarked the small range of diurnal variation of the vertical magnetic force here, as compared with the range at Kew Observatory, England, which is not far from our geographical antipodes, though evidently considerably removed from our magnetical antipodes.

The magnetograms for some of the most magnetically disturbed days are reproduced herewith for the information of other observatories.

MILNE SEISMOGRAPH No. 16.

This instrument has been in continuous operation during the year, and the records obtained have been developed, annotated, and measured up. Records of forty-six earthquakes were obtained for the year, a considerably smaller number than has been previously recorded here for similar periods—viz., from the 1st April to the 31st March. This is seen from the following table showing the number of records at Christchurch:—

Year.		Number of Earthquakes recorded.	Year.		Number of Earthquakes recorded.
1902-3	.. ..	.. 72	1906-7	.. ..	.. 82
1903-4	.. ..	.. 68	1907-8	.. ..	.. 86
1904-5	.. ..	.. 96	1908-9	.. ..	.. 46
1905-6	.. ..	.. 86			

The lessened frequency of quakes may possibly be connected with the increased volcanic activity in various parts of the world, including New Zealand in a minor degree. Nothing can be definitely affirmed on this head until the matter is subjected to a research based upon the reports from all the seismological stations throughout the world. Professor G. P. Agammenone, of the Italian Observatory of the Rocca di Papa, Rome, has nearly completed a discussion of the records obtained of the Calabrian earthquake of 1905, and has found the Christchurch record of very great value in his researches, since it is so nearly the antipodes of Calabria. Undoubtedly he will make a similar investigation of the recent disastrous Calabrian earthquake of the 28th December, 1908, which was also recorded here, which record is reproduced herewith.

It would be desirable to add to our seismograph the recently designed arrangement for securing a more open time-scale. This would greatly enhance the value of the records obtained. Some of the more important seismograms are reproduced for convenience of comparison with those of other observatories. A list of earthquakes is appended.

METEOROLOGICAL OBSERVATIONS.

Regular meteorological observations of the pressure and temperature of the air, humidity, cloud, wind, intensity of solar radiation, maximum and minimum air-temperature, &c., have been made twice daily throughout the year at 9.30 a.m. and 5 p.m. each day.

MAGNETIC SURVEY.

It was, fortunately, found possible to make magnetic observations in the south-west portion of the South Island, a district which the absence of roads had hitherto prevented us from reaching with our instruments. In December last a party of a semi-scientific nature left Christchurch and visited all the West Coast Sounds of Otago, in the s.s. "Rakuira," specially chartered for the journey. I accompanied the party, and, though the time was limited and the weather for all but a few days execrable, still, through the hearty co-operation of Dr. C. C. Farr and Mr. H. D. Cook, it was found possible to observe eleven fresh stations in the Sounds. The party returned to Christchurch on the 6th January, the various scientists well pleased with the collections and observations they had made. The magnetic results are shown on the map published herewith. It is worthy of notice that the declination

observations showed that the compass-variations given on the Admiralty charts of that region were considerably in error, the variation being given too small by an amount which would throw a vessel depending entirely upon her compasses off her course by some ten miles in the course of a day's run.

The total number of stations at which magnetic observations have been made in the Dominion up to this time is 309, distributed as follows :—

								Stations.
North Island	..	..	..	..	..	..	..	123
South Island	..	..	..	..	..	..	..	152
Stewart Island	..	..	..	..	..	..	..	2
Chatham Islands	..	..	..	..	..	..	..	20
Snares Island	..	..	..	..	..	..	..	1
Auckland Islands	..	..	..	..	..	..	..	8
Campbell Island	..	..	..	..	..	..	..	3
								309

A map of portion of the South Island is published herewith showing lines of equal declination and embodying the results of the eleven West Coast stations recently observed.

GENERAL.

Reference must be made to the return of Lieutenant Shackelton's Antarctic Expedition in the "Nimrod," after getting one of their land parties to within a hundred miles of the South Pole and another party to the immediate neighbourhood of the South Magnetic Pole, thus verifying by actual observation the position of the latter as calculated from the magnetic data brought back by the "Discovery" expedition. The dip circle used by the "Nimrod" party was verified here upon their return last March. The explorers, and Lieutenant Shackleton in particular, are to be congratulated upon their magnificent success.

I wish to heartily thank the directors of the many observatories and scientific institutions that have kindly contributed their publications to the library of this Observatory.

In conclusion, I wish to acknowledge the valuable services of my assistant, Mr. B. V. Pemberton, throughout the year.

The magnetograms reproduced are reduced to three-eighths natural size, so that the published curves have the following values of scale :—

- Declination curve + 1 mm. = - 3' arc.
- Horizontal force curve + 1 mm. = - 0.00012 c.g.s. unit.
- Vertical force curve + 1 mm. = - 0.00009 c.g.s. unit.

The Observatory regularly receives copies of seismograms from Alipore Observatory, by direction of the Director-General of Indian Observatories, and from the Royal Alfred Observatory, Mauritius.

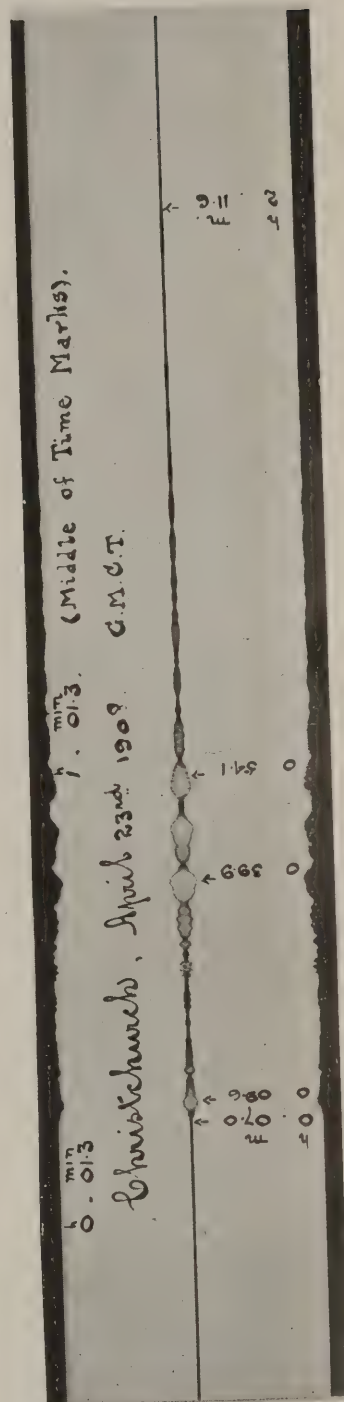
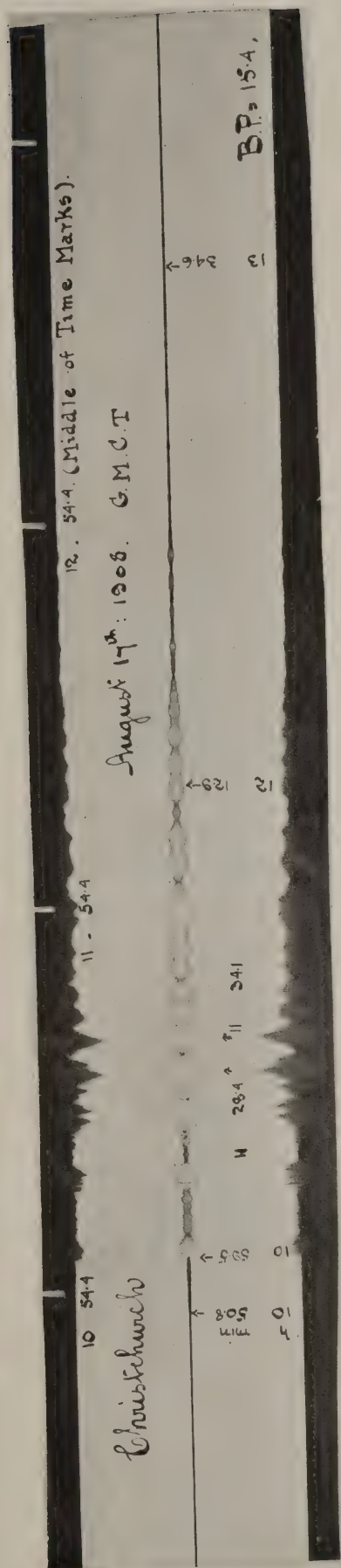
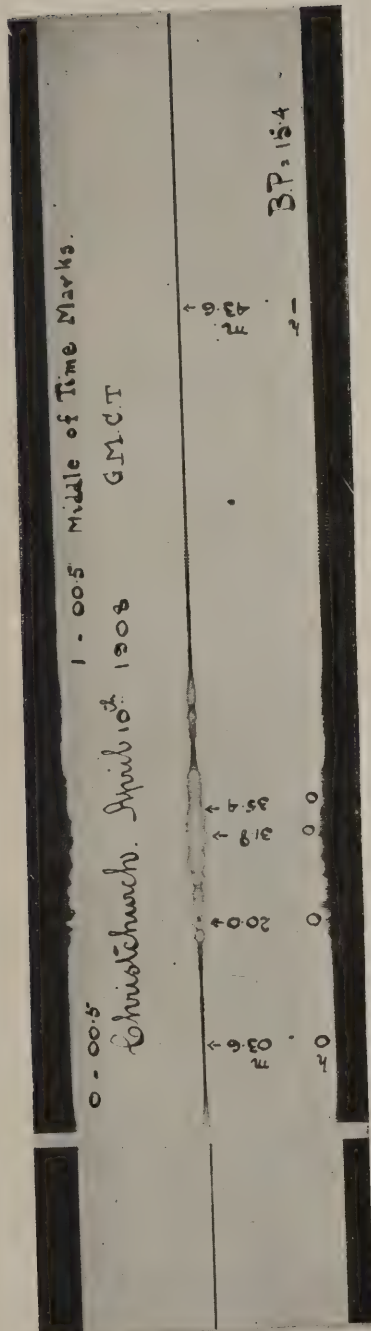
HENRY F. SKEY, B.Sc.,
Officer in charge.

RECORDS OF MILNE SEISMOGRAPH NO. 16, AT CHRISTCHURCH.

Latitude: 43° 31' 50" S. Longitude: 172° 37' 18" E. Time employed: Greenwich Mean Civil Time.

Time: G.M.C.T., as stated above. P.T. = Preliminary tremors less than 2mm. complete range; A.T. = After-tremors less than 2mm. complete range; B.E. = Beginning and end of vibrations not less than 2mm.; Amp. = Half-range in millimeters.

Date.	P.T. from	B.	Maxima.		Amp.	E.	A.T. till	B.P.	Remarks.
			From	To					
APRIL, 1908.									
	H. m.	H. m.	H. m.	H. m.	Mm.	H. m.	H. m.	Secs.	
7	1 26.2	..	1 37.5	..	0.5	..	2 09.6	15.4	
10	0 03.6	0 20.0	0 31.8	..	1.55	0 35.4	1 43.6	..	
12	9 09.1	..	9 14.8	..	0.1	..	9 25.6	..	
12	19 18.4	..	19 36.0	..	0.75	..	19 58.7	..	
15	6 06.1	..	6 17.4	..	0.4	..	6 27.8	..	
23	0 07.0	0 09.6	0 39.9	..	1.85	0 54.1	2 11.6	..	
MAY, 1908.									
5	5 28.2	..	6 03.8 and 6 05.4		1.0	..	7 08.5	..	
20	8 00.9	..	8 24.7	..	0.8	..	Indefinite	..	Followed by night tremors.
21	7 19.1	..	..	..	..	..	7 33.6	..	Slight.
JUNE, 1908.									
3	Indefinite	..	21 25.3	..	1.0	..	Indefinite	..	In middle of continuous tremors.
18	1 39.6	..	1 43.7	..	0.25	..	1 54.0	..	



Christchurch, December 9th 1908.

{ Series: Shells in X. Canaliculus & Ch. Ch.
Right in S. Canaliculus & T. Manu.

B.P. = 15.4.

Semi-amplitude = 6 mm.

↑ 0.0 0
0.0 0
0.0 0
0.0 0
0.0 0

G.M.C.T.

Christchurch New Zealand. December 28th 1908.

G.M.C.T.

Italy

Christchurch, Jan 3rd 1909.

G.M.C.T.

February 22nd, 1900.			
Christchurch, N.Z.			
P.F.	M.	E.	A.T.
↑	↑	↑	↑
267	310	68	101
5	6	4	11
G.M.C.T.			

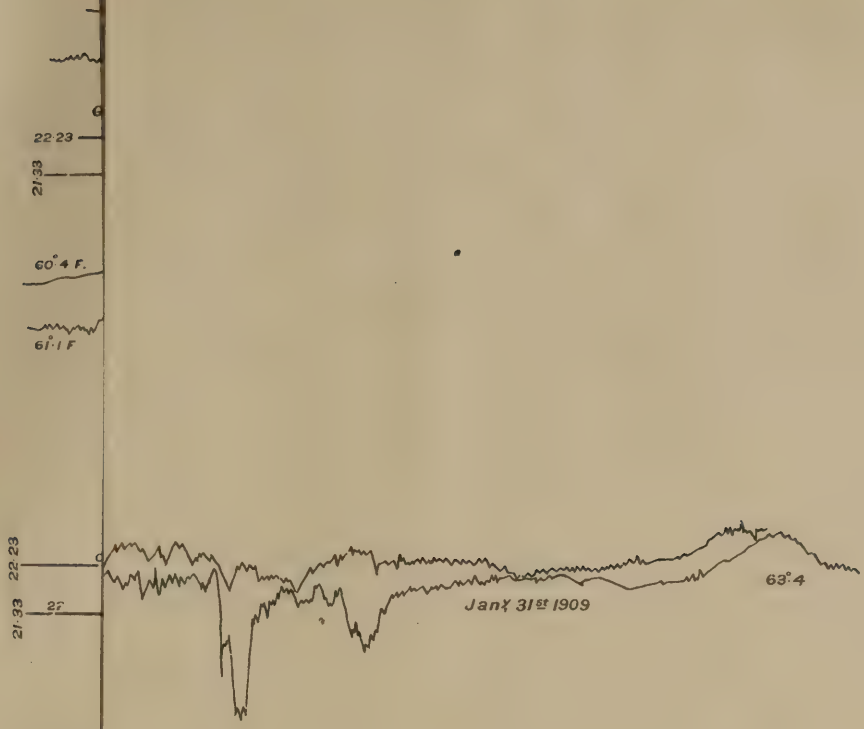
March 23rd (Middle of Time Marks).			
Christchurch, N.Z.			
23	24	25	26
581	582	582	582
G.M.C.T.			

March 22nd 1900.			
Christchurch, N.Z.			
21	22	23	24
581	581	581	581
G.M.C.T.			

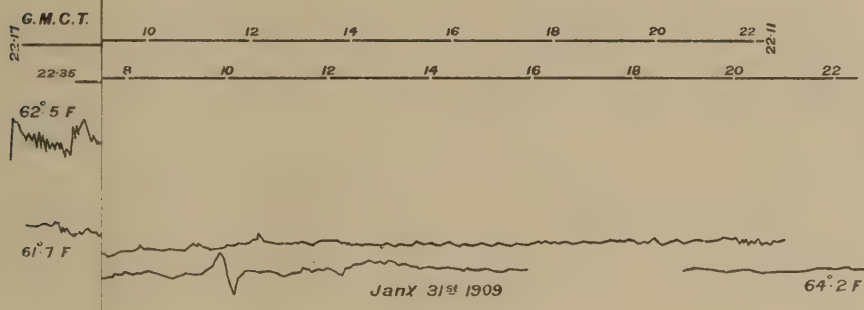
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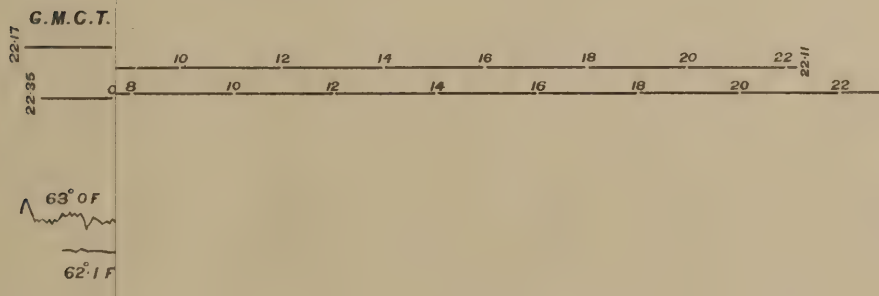
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H. F. Chch

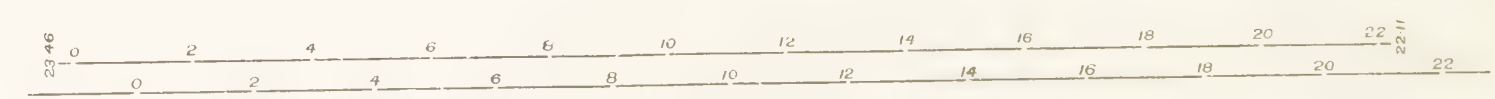
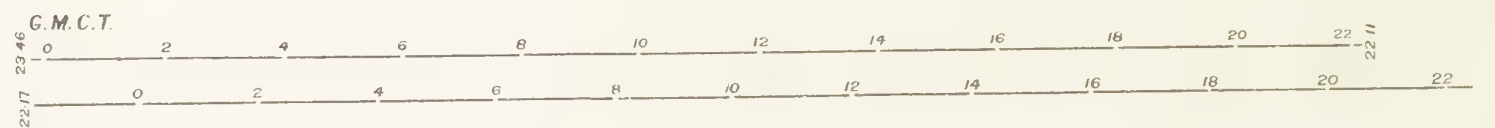
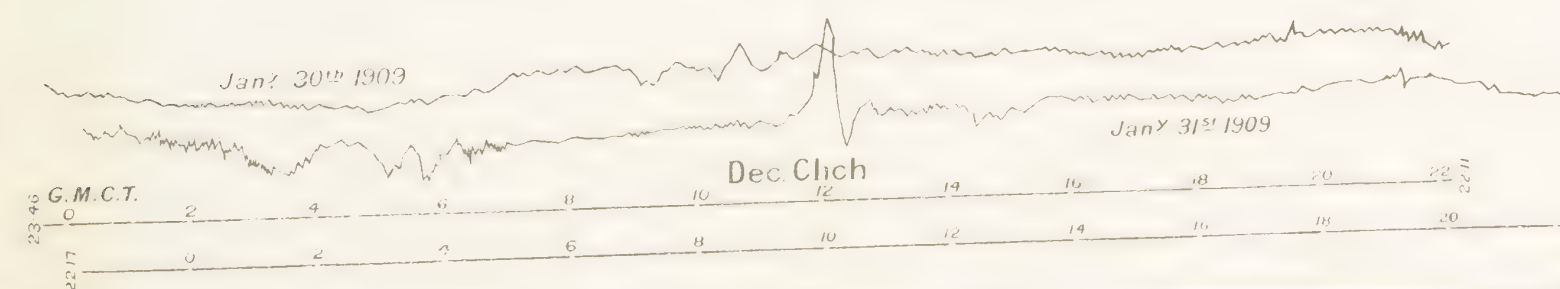
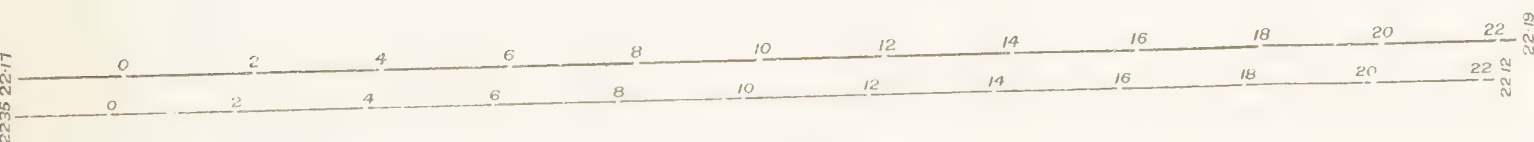
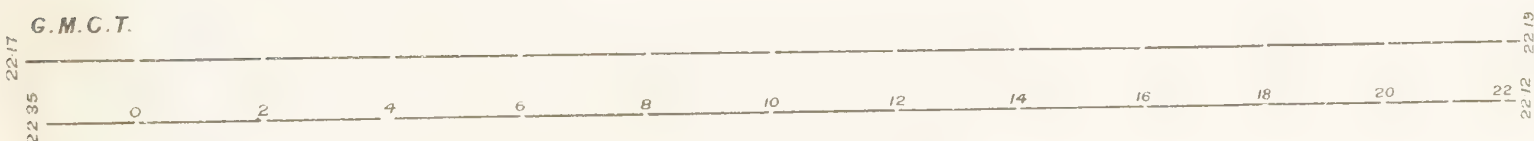
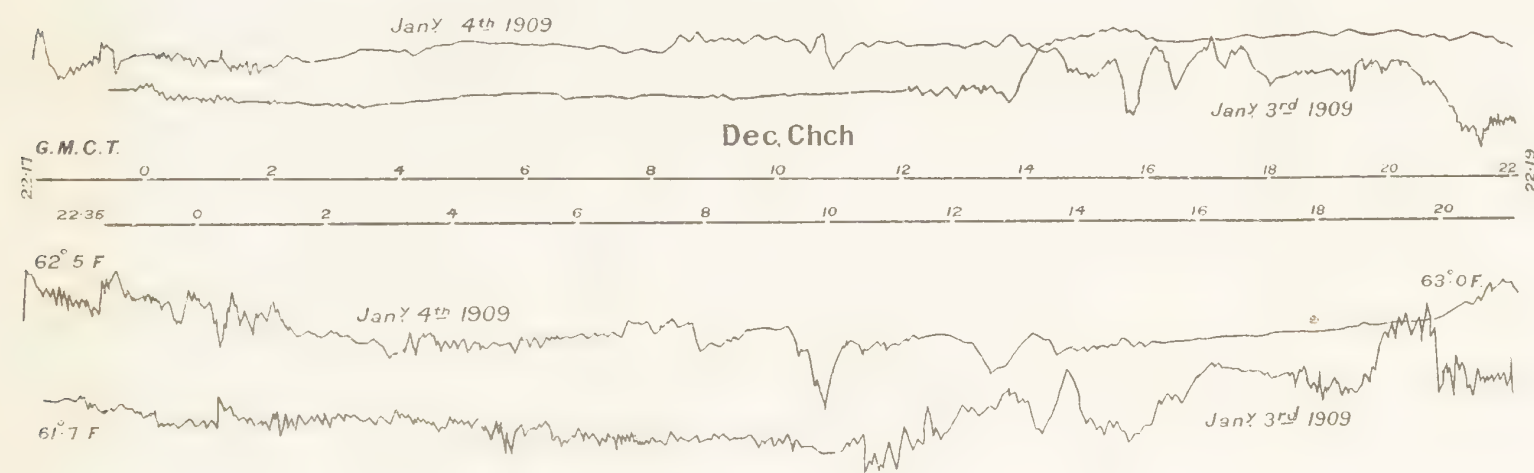
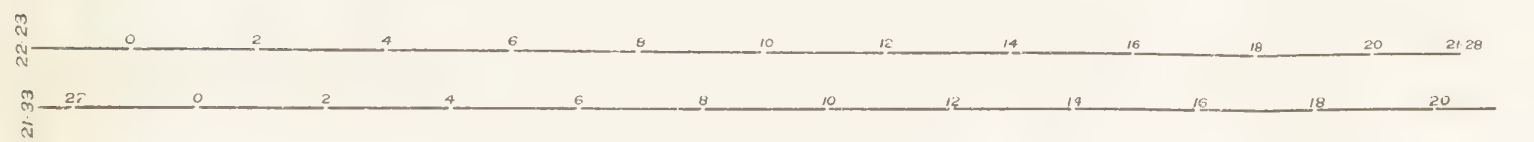
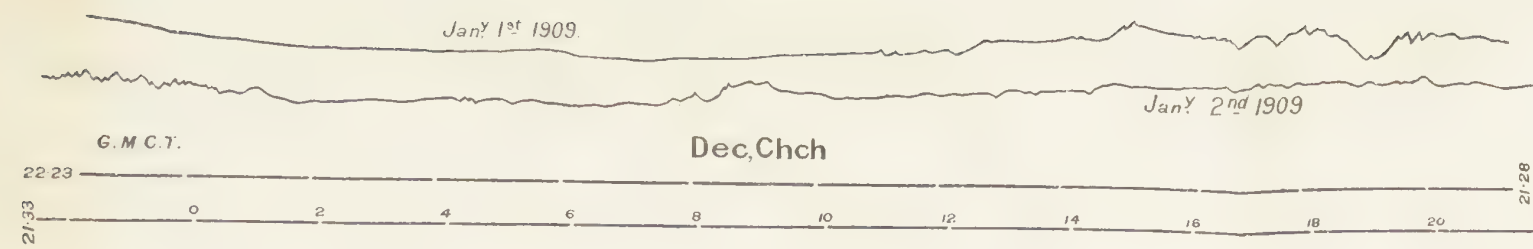


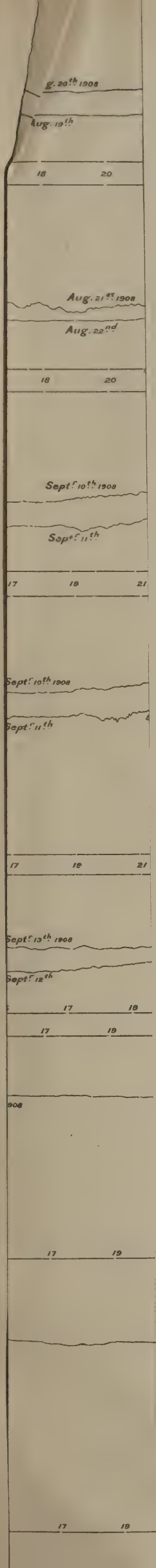
V. F. Chch



22.35 22.17

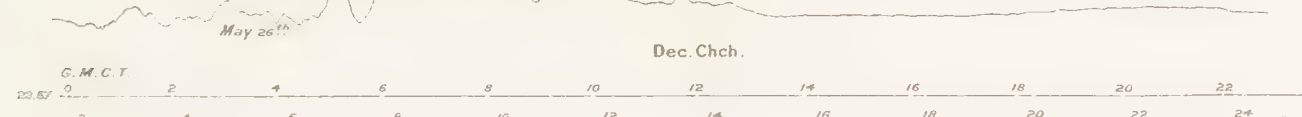
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Horizontal Force Chch.



Dec. Chch.

H.F. Chch.



H. F. Chch.

H. F. Chch.



Dec. Chch.

Dec. Chch.

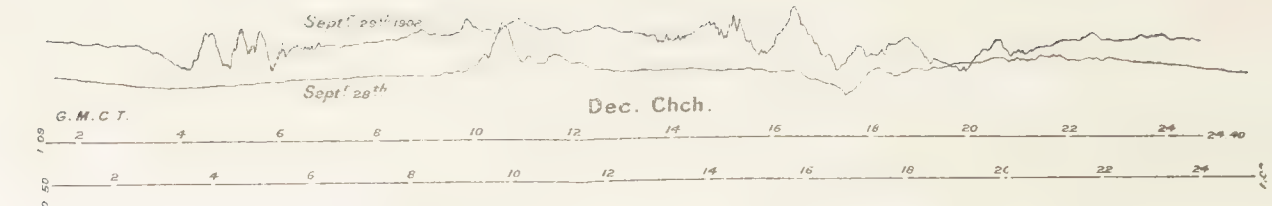
Dec. Chch

H. F. Chch.

Dec. Chc

Vertical Force Chch.

H. F. Chch.



Dec. Chch.

H. F. Chch.



V. F. Chch.

Dec. Chct.

H. F. Chch.

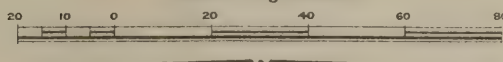
V. F. Chch.

PORTION OF
SOUTH ISLAND
NEW ZEALAND

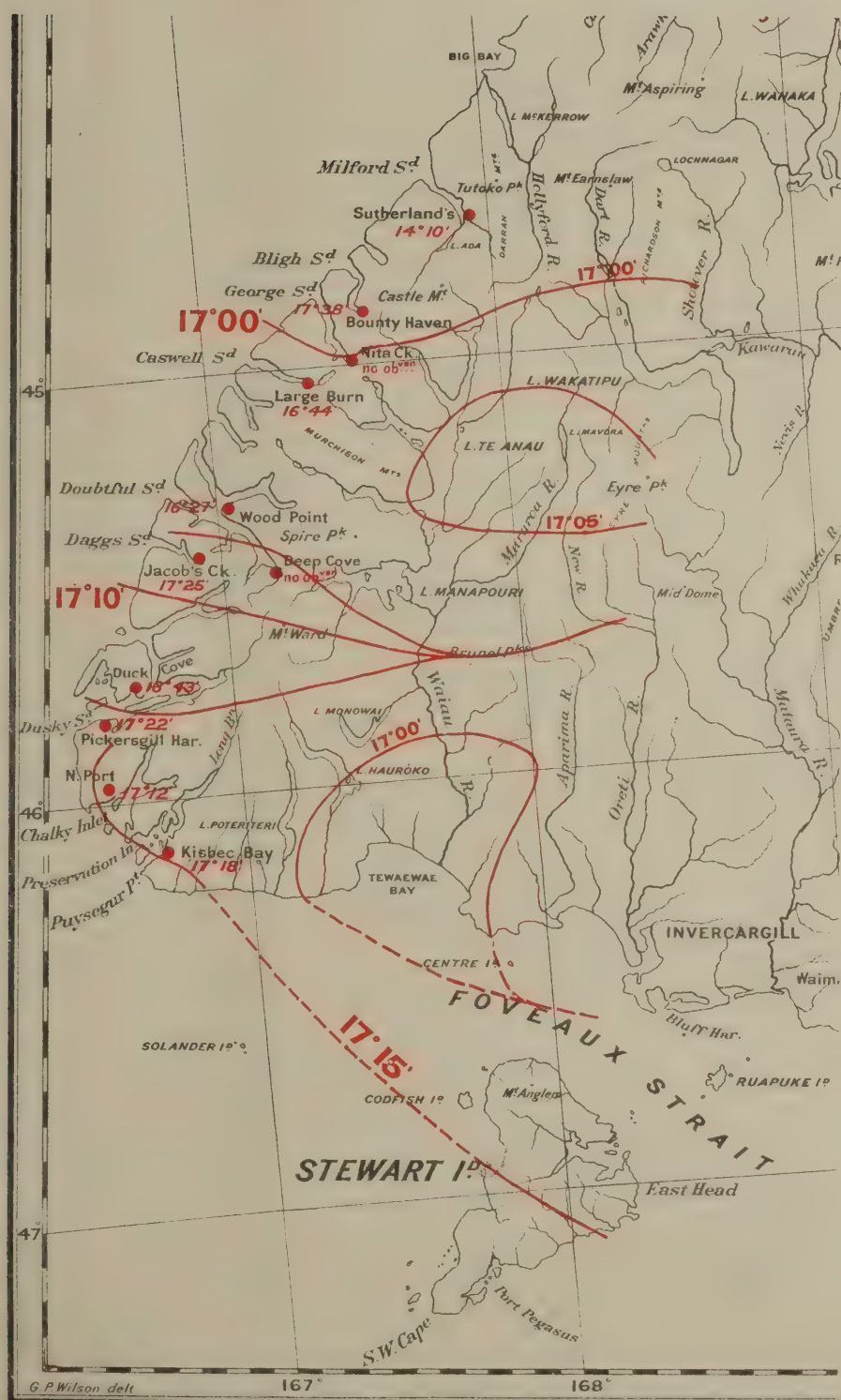
Shewing eleven additional Magnetic Stations from Milford S^d to Preservation Inlet.

December 1908 to January 1909

Scale of English Miles



Magnetic Stations shewn thus..... Jacob's Ck. ●
 Lines of equal Easterly Magnetic Declination for 1908 shewn thus
 Annual Variation +3'



RECORDS OF MILNE SEISMOGRAPH NO. 16, AT CHRISTCHURCH—*continued.*

Date.	P.T. from	B.	Maxima.		Amp.	E.	A.T. till	B.P.	Remarks.
			From	To					
AUGUST, 1908.									
17	10 50·8	10 59·5	11 28·4 and 11 34·1		5·5	12 12·9	13 34·6	..	
SEPTEMBER, 1908.									
2	Indefinite	..	21 15·8	..	0·9	..	Indefinite	..	P.T. and A.T. obscured by night tremors.
14	3 32·5	..	3 36·7	..	0·4	..	3 53·2	..	
21	6 55·7	..	7 11·8	..	0·9	..	8 39·2	..	
22	3 11·8	..	3 23·7	..	0·35	..	3 41·8	..	
26	5 27·4	5 32·0	5 34·1	..	4·9	5 41·8	6 40·8	..	
OCTOBER, 1908.									
7	1 00·7	..	1 21·9	..	0·8	..	1 53·5	..	Swellings.
13	5 31·0	..	..	..	..	..	7 12·8	..	
NOVEMBER, 1908.									
11	21 22·3	..	21 30·0	..	1·0	..	22 21·2	..	Preceded by night tremors.
15	2 00·8	..	..	..	..	..	2 22·0	..	Slight swelling.
22	22 52·7	..	22 58·4	..	0·25	..	23 13·4	..	
27	0 38·0	..	0 41·1	..	0·3	..	1 02·3	..	
30	21 24·1	..	21 27·2	..	1·9	..	21 52·0	..	
DECEMBER, 1908.									
1	3 05·4	..	..	..	..	..	3 43·7	..	Swellings.
2	15 12·5	..	15 15·6	..	0·25	..	15 35·2	..	
7	2 00·3	..	2 06·9	..	0·15	..	2 31·4	..	
8	0 26·1	..	0 26·4 and 0 27·5	..	6·0	..	0 40·6	..	Severe shock in North Canterbury and slight in South Canterbury.
16	..	..	6 07·7	..	0·4	..	..	15·4	In middle of continuous tremors.
28	4 40·9	..	4 55·3	..	0·6	..	7 02·6	..	Subsequent tremor at 7h. 17·1 m. Origin Italy.
			5 00·5						
			5 07·8						
			5 20·9						
			5 30·0						
			6 07·2						
			6 13·4						
			6 17·1						
6 20·2									
6 24·3									
JANUARY, 1909.									
1	4 11·7	..	..	..	..	..	4 19·0	..	Swelling.
3	21 46·5	21 51·2	21 52·2 and 21 54·3	..	6·4	22 03·6	23 10·8	..	In progress while attending to instrument.
17	3 17·9	..	3 28·2	..	0·4	..	3 42·7	..	
21	2 38·4	..	2 47·7	..	0·5	..	3 07·3	..	
23	3 49·6	..	..	..	..	..	5 26·3	..	Tremors.
28	0 38·5	..	..	..	..	..	0 42·7	..	Thickening merely.
29	0 59·8	..	1 15·9	..	0·3	..	1 44·3	..	
29	..	..	13 26·7	..	0·4	..	..	..	In middle of night tremors.
FEBRUARY, 1909.									
11	H. m. Indefinite	H. m. 18 24·2	H. m. 18 25·8	H. m. ..	Mm. 2·3	H. m. 18 29·4	H. m. Indefinite	Secs. ..	P.T. and A.T. obscured by night tremors.
22	9 26·7	9 31·3	9 37·0	..	3·4	10 03·9	11 10·1	..	
27	Indefinite	..	13 33·4	..	1·5	..	Indefinite	..	P.T. and A.T. obscured by night tremors.
MARCH, 1909.									
8	11 45·7	11 56·0	11 56·5 and 11 59·1	..	1·9	12 00·2	Indefinite	..	A.T. obscured by night tremors.
10	7 37·4	..	7 38·4	..	0·45	..	7 42·0	..	
17	23 05·2	23 32·3	23 35·9	..	3·3	23 44·2	25 36·4	..	
							26 23·0	..	
							27 01·3	..	
22	22 05·3	22 06·4	22 07·4	..	17·0+	22 31·2	24 21·5	..	Direction N. and S. Felt in southern towns.
26	1 53·8	..	..	..	..	..	1 59·5	..	Maximum at beginning. Amplitude very slight. Felt in Christchurch. Direction N. and S.

APPENDIX III.

MEAN SEA-LEVEL.

THE mean sea-level at the ports of Auckland, Wellington, Lyttelton, Port Chalmers, Nelson, and Westport has been determined from the tide-gauge records and referred to permanent bench-marks on the adjacent shores, the details of which will be found in the following pages.

Attempts were made to arrive at it at other places where gauges had been in use ; but the records were found to be so intermittent and unsystematic that they were of little value for the purpose in hand.

AUCKLAND.

The automatic gauge, from the tide-sheets of which the mean sea-level has been deduced, is situated at the Devonport Ferry Wharf.

Bench-mark A, 8.86 ft. below M.S.L., is a point on the sill of the Auckland Dock, marked by a copper bolt.

Bench-mark B, 27.26 ft. above M.S.L., is the top of the stone block of the City Standard Survey, situated at the intersection of Customs and Albert Streets, at the corner against Section 18.

Bench-mark C, 41.02 ft. above M.S.L., is the top of the standard block on the west side of Albert Street, and nearly in line with the north side of Mills Lane.

Bench-mark D, 43.17 ft. above M.S.L., is the top of the standard block at the intersection of Moore and Albert Streets, at the corner against Section 15.

Mean sea-level was determined by the mean of the high- and low-water records throughout the years 1907 and 1908, which, taken independently, differed just one-third of an inch. The mean for these two years, which, as in the other cases, is adopted, differs only $\frac{1}{100}$ in. from the mean of the four years 1905 to 1908, inclusive.

WELLINGTON.

The automatic gauge is on the Jervois Quay Wharf, in the south end of N shed.

Bench-mark A, 6.64 ft. above M.S.L., is on the north side of the western pillar of the 40-ton crane, between N and O sheds, on Jervois Quay. It is $6\frac{1}{2}$ in. below the deck-level of the wharf, and is marked by a gun-metal bolt.

Bench-marks, two in number, at B, are at the Equitable Building and Investment Company's office, No. 360 Lambton Quay. One 10.56 ft. above M.S.L., is marked by a gun-metal bolt in the wall about 12 ft. south of the doorstep and $6\frac{1}{2}$ in. above the footpath ; the other, 10.75 ft. above M.S.L., is marked by a hexagonal gun-metal plug on the doorstep at the east end.

Bench-marks, two in number, at C, are at the Bank of New South Wales, Nos. 320 and 322 Lambton Quay. One 9.52 ft. above M.S.L., is marked by a gun-metal bolt in the wall about 3 ft. south of the main door and about 1 ft. above the pavement. The other, 8.55 ft. above M.S.L., is in the pavement close to the former, and marked by a hexagonal gun-metal plug.

Bench-mark D, 8.63 ft. above M.S.L., is marked by a hexagonal gun-metal plug in the doorstep of the main door of the Harbour Board Office, inside the left-hand door at the east end.

"Mean sea-level" was determined by the mean of the high- and low-water records throughout the years 1907 and 1908, which, taken independently, differ $\frac{7}{100}$ in.

The results are not so nearly accordant as those of Auckland or Lyttelton, which, however, is not surprising, considering the configuration of the harbour, with its narrow entrance, facing, as it does, Cook Strait, with its erratic and strong currents.

LYTTELTON.

The automatic gauge is situated near the south end of the small wharf in line with St. David Street.

Bench-mark A, 11.98 ft. above M.S.L., is 200 ft. westerly from the landing-steps of the small wharf referred to, and is a point on the south face of the south pier supporting the foot overbridge from the railway-station to the wharves. It is 2 ft. above the ground, on a ledge 3 in. wide and 8 in. from the south-east corner of the pier, and is marked by an inch copper bolt fixed in the concrete.

Bench-mark B, 8.05 ft. above M.S.L., is at the graving-dock, and is 26 ft. south of the dock tide-gauge outside the dock gate, which latter is marked by Roman numerals cut in the concrete face. The point B is marked by an inch copper bolt fixed in the concrete.

The "mean sea-level" was determined by the mean of the high- and low-water records throughout the years 1907 and 1908, which, taken independently, differ only $\frac{8}{100}$ in.

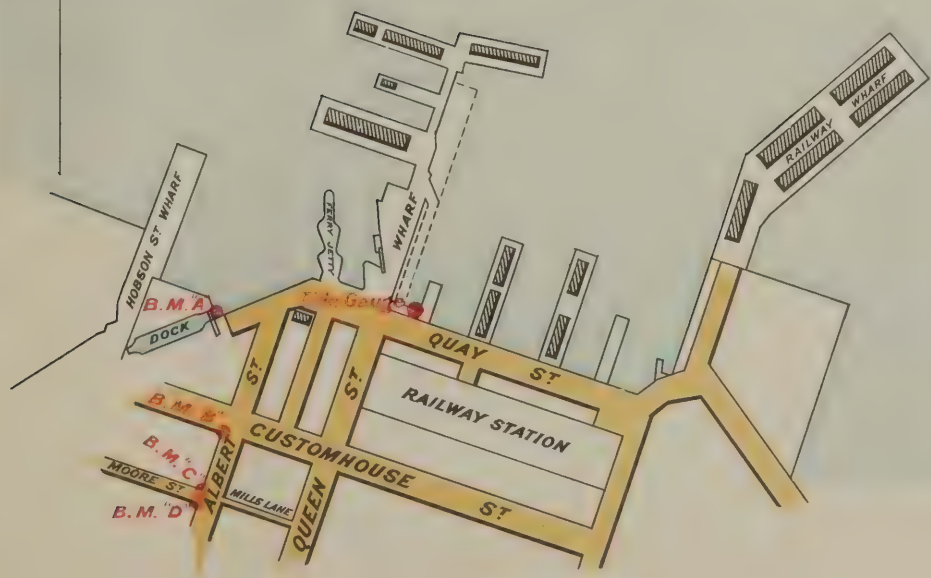
PORT CHALMERS.

The automatic tide-gauge is situated at the breastwork between George Street Wharf and Bowen Pier.

Bench-mark A, 4.80 ft. above M.S.L., is the top of the large concrete block of the Geodetical Station at Observation Point.

Bench-mark B, 6.42 ft. above M.S.L., is the top of the concrete cone on the above, and is marked by a $1\frac{1}{2}$ in. iron tube.

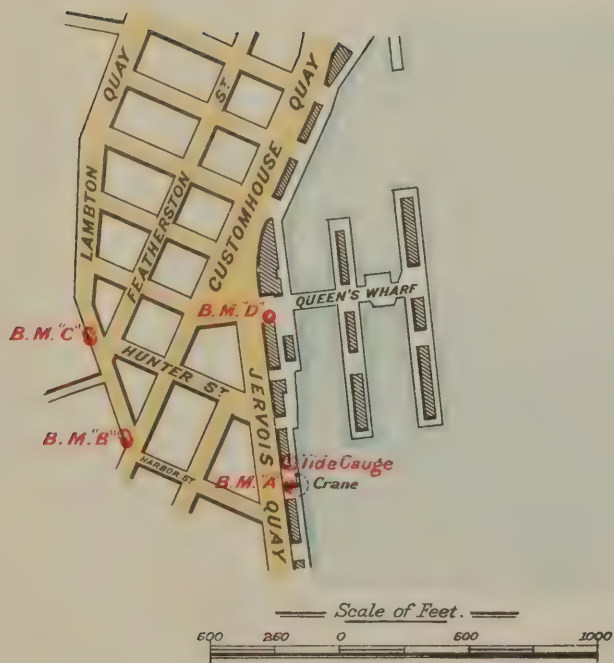
AUCKLAND



Note.

Bench Mark A	below mean sea level	8.86 Feet
" "	" Above " " "	27.26 "
" "	" " " " "	41.02 "
" "	" " " " "	43.17 "

— WELLINGTON —



Bench Mark "A" above mean sea level						6.64 Feet
"	"	"B"	"	"	"	{ 10.56 "
"	"	"C"	"	"	"	{ 10.75 "
"	"	"D"	"	"	"	{ 9.52 "
"	"	"E"	"	"	"	{ 8.55 "
"	"	"F"	"	"	"	{ 8.63 "

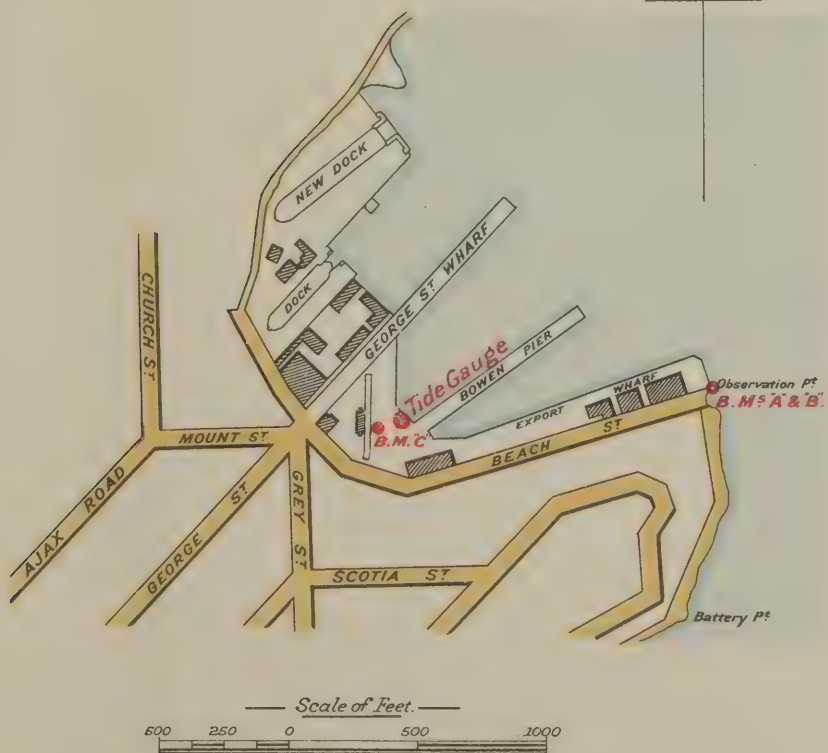
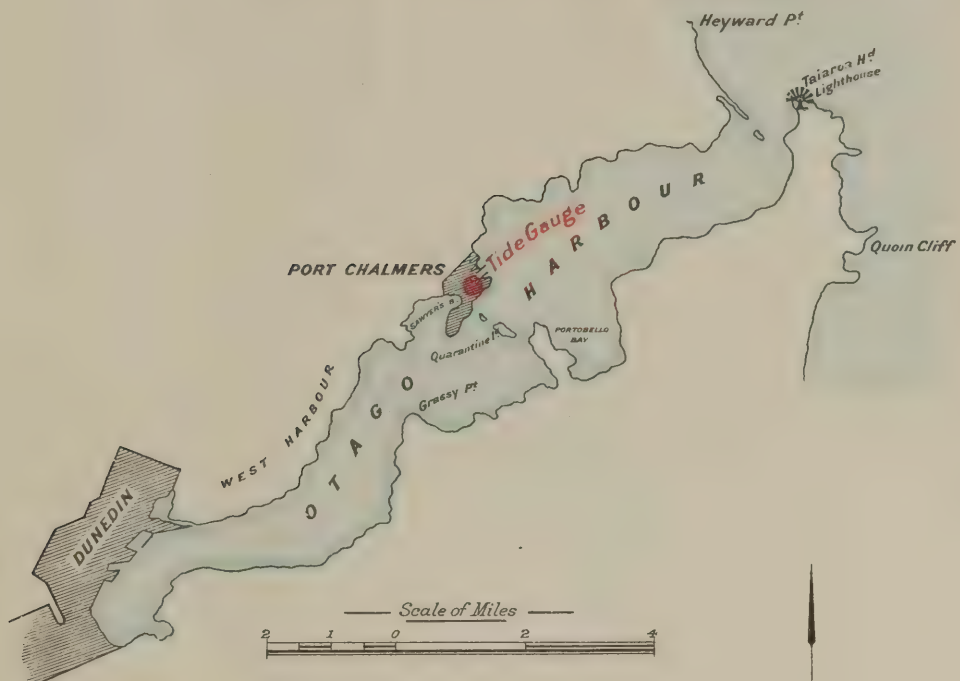
LYTTELTON



Note.
Bench Mark 'A' above mean sea level 11.98 Feet.
" " 'B' " " " " 8.05 "

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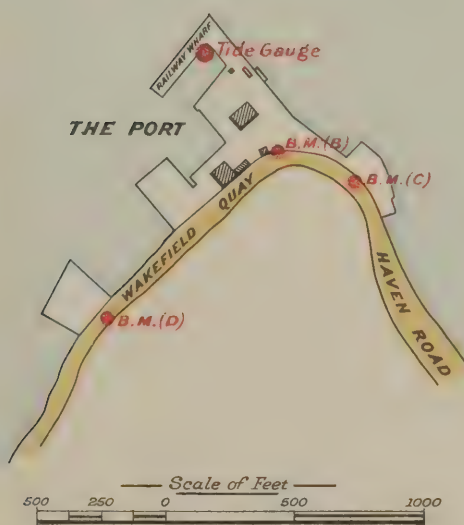
PORT CHALMERS



Note.

Bench Mark 'A' above mean sea level	-----	4.80 Feet.
" " 'B' " " " "	-----	6.42 "
" " 'C' " " " "	-----	11.44 "

NELSON



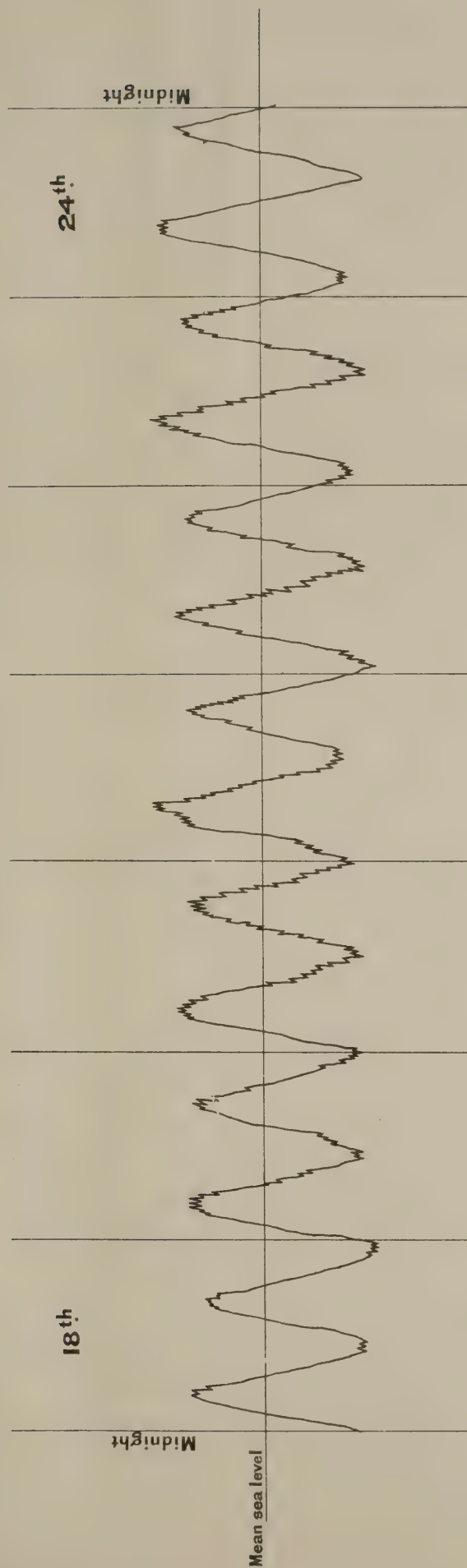
Note.

Bench Mark	A	above mean sea level	14.22	Feet
" "	B	" "	10.82	"
" "	C	" "	10.21	"
" "	D	" "	12.07	"

WESTPORT

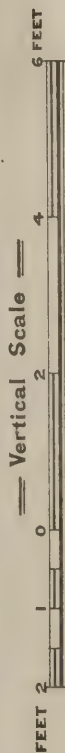


January 1908



SEICHE OSCILLATIONS

For five consecutive days in Wellington Harbour.



C.-1A.

Bench-mark C, 11.44 ft. above M.S.L., is the railway bench-mark at Port Chalmers Station.

"Mean sea-level" was determined by using the gauge records from the 9th July, 1905, for the period of 369 days.

NELSON.

The tide-gauge from which the records were taken is of the fixed-board pattern, and is situated about 4 chains south of the lighthouse.

Bench-mark A, 14.22 ft. above M.S.L., is a point on the top of the foundation of the lighthouse, at the south-east corner, and is marked by a copper bolt.

Bench-mark B, 10.88 ft. above M.S.L., is the top of "standard stone" No. 82A at the corner of Wakefield Quay and Haven Road.

Bench-mark C, 10.21 ft. above M.S.L., is the top of standard stone 81A, Haven Road.

Bench-mark D, 12.07 ft. above M.S.L., is the top of standard stone No. 83A, Wakefield Quay.

B, C, and D are each marked by a copper bolt.

"Mean sea-level" was determined by the mean of high- and low-water records throughout the years 1907 and 1908, which, taken independently, differ just 1 in.

WESTPORT.

The automatic tide-gauge is situated at the north end of Crane Wharf.

Bench-mark A, 11.21 ft. above M.S.L., is a dressed-granite block, within and at the south-west corner of Victoria Square, against Brougham and Russel Streets, marked by a copper bolt.

Bench-mark B, 11.26 ft. above M.S.L., is in the same locality, of the same character, and marked in the same manner as A, and is distant therefrom, in a direction parallel to Brougham Street, 64.8 ft.

Bench-mark C, 11.32 ft. above M.S.L., is of the same character and marking as A, and is distant therefrom 131.6 ft. in line with A B.

"Mean sea-level" was determined by the mean of the high- and low-water records throughout the years 1907 and 1908, which, taken independently, differ 0.98 in. This is a tidal river subject to very heavy floods, and the gauge is about a mile and a quarter from its mouth.

Table 1.—SUMMARY of FIELD-WORK executed by the STAFF and CONTRACT SURVEYORS from 1st April, 1908, to 31st March, 1909.

Land District.	Minor Triangulation.		Topographical Survey.		Topographical Survey for Selection as "Unsurveyed Land."		Rural and Suburban.		Town Section Survey.		Native Land Survey.		Gold-mining Survey.			Roads, Railways, and Water-race		Other Work.		Total Cost of Surveyors and Parties from 1st April, 1908, to 31st March, 1909.								
	Acres.	Cost per Acre.	Acres.	Cost per Acre.	Acres.	No. of Sections.	Cost per Acre.	Acres.	No. of Allotments.	Cost per Allotment.	Acres.	No. of Secs. or Divs.	Cost per Acre.	Acres.	No. of Sections.	Cost per Mile.	Cost.	£	s.	d.	£	s.	d.					
Auckland ..	94,000	1.02	..	..	89,733	253	1.68	76	110	34.72	{ (a) 1,175 (b) 34,855	1 37	16.42 8.31	..	..	81.15	25.04	3,248	6	4	20,755	7	11	
Hawke's Bay ..	9,580	1.	..	..	11,446	98	2.35	..	..	..	(a) 30,162	47	8.	..	..	34.00	12.97	1,065	19	8	6,953	15	4
Taranaki ..	43,000	1.4	..	..	22,955	69	3.25	59.5	95	37.67	(a) 6,119	8	16.65	..	..	16.53	17.94	2,574	18	6	6,329	18	5	
Wellington ..	..	..	15,336	3.4	53,678	125	2.58	85.0	252	15.46	(b) 14,338	28	33.6	..	..	25.8	17.9	2,063	0	5	10,598	19	3	
Nelson ..	8,800	2.6	..	..	39,374	134	2.55	0.5	2	30.00	..	..	..	184	4	13.0	12.46	1,105	15	5	10,021	13	7
Marlborough..	..	..	..	..	19,579	75	1.76	..	..	..	..	..	..	..	..	46.76	25.78	733	14	6	4,271	1	2
Westland ..	..	..	32,600	4.2	33,444	143	1.95	208.0	441	22.46	..	..	..	..	..	5.00	13.63	420	13	3	4,109	16	8
Canterbury ..	..	..	..	..	30,882	64	0.55	90.0	41	27.8	..	..	..	..	..	1.93	20.72	1,222	14	9	1,253	3	2
Otago ..	..	..	27,550	3.4	50,478	69	0.87	..	..	..	..	..	..	64	1	..	..	260	15	7	3,136	17	7
Southland ..	6,975	0.49	..	..	14,380	65	3.35	..	..	..	..	..	..	..	..	2.19	32.75	183	9	8	3,637	9	8
Means and totals	162,355	1.18	75,486	3.76	38,052	1,090	1.53	519	941	23.80	86,649	121	13.10	248	5	226.36	21.00	12,879	8	1	71,068	2	9					
Licensed surveyors (paid by applicants) ..																							6,108	68	..			
Totals ..																							6,356	73	..			

(*) Native Land Court. (b) Maori Land Board.

Table 2.—RETURN showing SURVEYORS EMPLOYED and the WORK on HAND on 1st April, 1909.

Chief Surveyors.	Surveyors employed.		Work on Hand.						
	Staff.	Tempo- rary.	Land District.	Trig.	Settle- ment.	Town.	Native Land Sur- vey.	Roads, &c.	Mining and Mineral Leases.
				Sq. Ml.	Acres.	Acres.	Acres.	Miles.	Acres.
J. Strauchon ..	16	5	Auckland ..	60	115,672	308	59,538	166	..
H. Trent ..	7	1	Hawke's Bay ..	..	66,729	..	24,726	10	..
F. Simpson ..	2	5	Taranaki ..	..	71,880	..	2,870	..	..
J. Mackenzie ..	11	..	Wellington ..	..	79,561	2	57,966	15	..
R. T. Sadd ..	7	5	Nelson ..	278	123,293	..	40,000	8	..
F. Stephenson Smith ..	1	3	Marlborough ..	..	103,500	..	..	30	..
G. J. Roberts ..	3	1	Westland ..	..	34,000	..	..	..	..
E. C. Gold Smith ..	1	..	Canterbury ..	..	90	2	..	0.5	..
D. Barron ..	3	1	Otago ..	..	294,000	..	..	..	..
E. H. Wilmot ..	2	2	Southland ..	..	2,400	..	24,900	8	..
Totals ..	53	23	..	338	891,125	312	210,000	237.5	..

Table 3.— PLANS placed on CROWN GRANTS and other INSTRUMENTS of TITLE from the CROWN from 1st April, 1908, to 31st March, 1909.

District.	Number.					Cost.
	Singly.	In Duplicate.	In Triplicate.	In Quadruplicate	Total Copies.	
Auckland ..	..	266	551	176	2,889	£ s. d. 140 18 0
Hawke's Bay ..	8	186	57	92	919	62 8 6
Taranaki ..	..	7	80	55	474	46 14 8
Wellington ..	1	76	842	712	1,631	81 11 0
Nelson ..	4	46	129	121	967	111 13 6
Marlborough ..	4	28	50	5	230	41 11 4
Westland ..	..	184	14	109	846	110 0 0
Canterbury ..	39	21	7	54	318	46 2 3
Otago ..	..	155	240	..	1,030	218 0 0
Southland ..	41	85	88	10	515	29 17 6
Totals ..	97	1,054	2,058	1,334	9,819	888 16 9

Table 4.— WORK DONE under the LAND TRANSFER ACT, &c., from 1st April, 1908, to 31st March, 1909.

District.	No. of Plans passed.	Deeds and other Instruments passed.	Number of Plans placed on Certificates of Title.			Miscellaneous Plans drawn or compiled.	Cost.
			Singly.	In Duplicate.	In Triplicate.		
Auckland ..	334	1,785	17	2,203	1	10	£ s. d. 442 10 0
Hawke's Bay ..	209	574	..	753	113	25	608 17 0
Taranaki ..	118	..	12	401	52	970	302 12 8
Wellington ..	394	3,732	76	2,173	..	25	1,390 0 0
Nelson ..	59	150	..	198	..	..	120 0 8
Marlborough ..	24	..	..	117	4	..	40 18 2
Westland ..	27	50	..	60	11	..	97 2 4
Canterbury ..	359	2,361	29	1,970	12	32	1,211 17 3
Otago ..	..	1,445	12	880	12	9	334 4 3
Southland ..	92	22	26	456	3	..	295 0 0
Totals ..	1,616	10,119	172	9,211	208	1,071	4,843 2 4

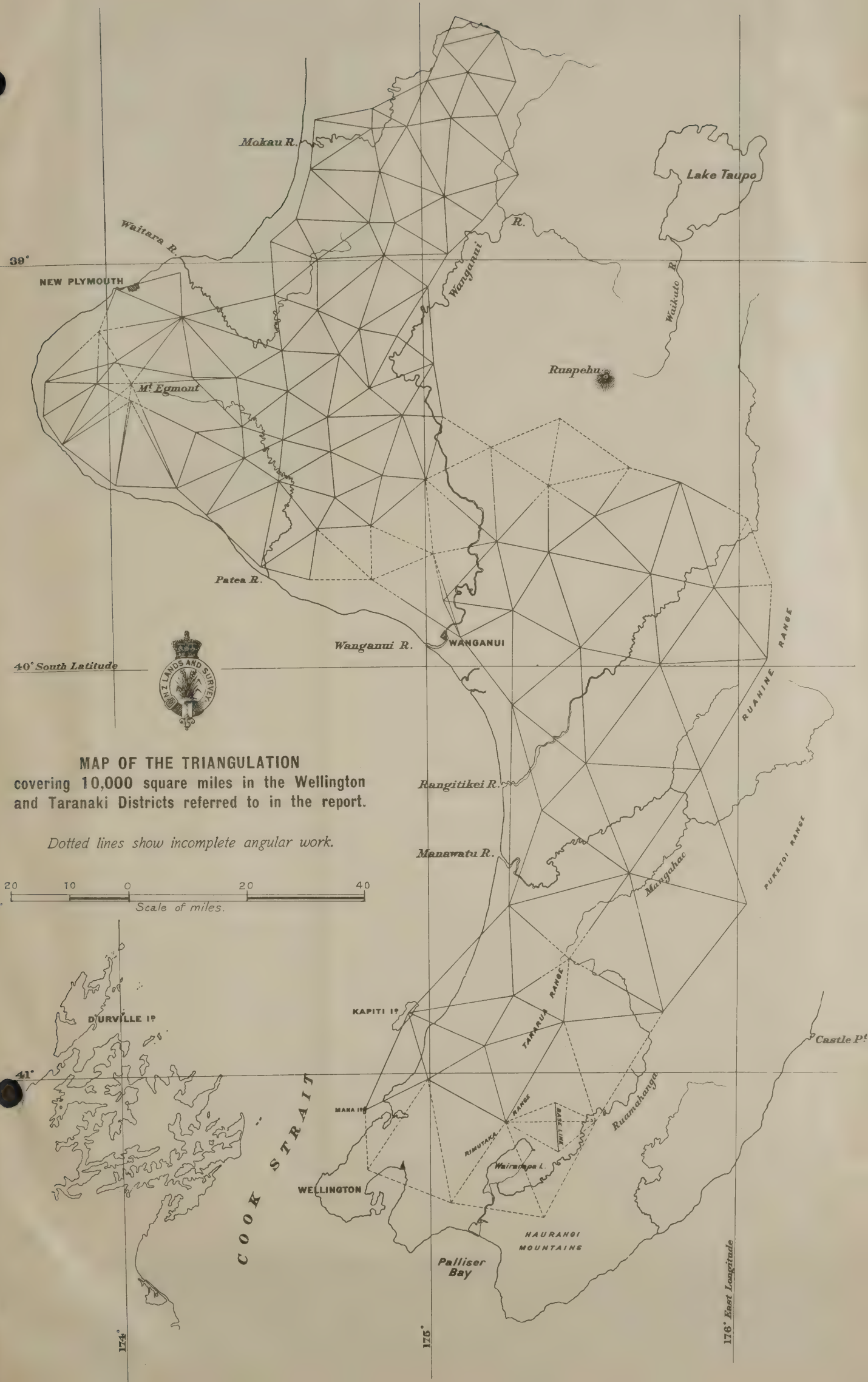
Table 5. — LITHOGRAPHS and PHOTOGRAPHS printed and sold, from 1st April, 1908, to 31st March, 1909.

District.				Number of Lithographs printed.	Number of Photographs printed.	Amount of Fees received from Sale of Maps and Lithographs.
						£ s. d.
Auckland	..	..	..	1,601	..	123 12 2
Hawke's Bay	..	..	..	..	..	51 10 7
Taranaki	..	..	..	..	..	57 7 5
Wellington	..	..	..	..	..	62 2 2
Nelson ..	..	..	..	..	..	43 14 11
Marlborough	..	..	..	..	..	21 5 7
Westland	..	..	..	..	..	9 19 3
Canterbury	..	..	..	..	..	36 9 0
Otago ..	..	..	..	1,009	..	85 4 1
Southland	..	..	..	..	..	29 8 5
Totals	..	..	..	2,610	..	520 13 7

Approximate Cost of Paper.—Preparation (not given); printing (1,500 copies, including maps, &c.), £119.

By Authority : JOHN MACKAY, Government Printer, Wellington.—1909.

Price 2s.]

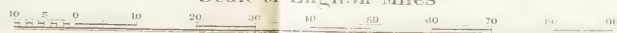


NORTH ISLAND (TE IKA-A-MAUI)

NEW ZEALAND

SHOWING THE
STATE OF THE PUBLIC SURVEYS, 1909.

Scale of English Miles



Reference
 Citrus
 Boroughs
 Towns
 Railways
 Roads
 Boundaries of Land Districts
 Projection - Rectangular Tangential

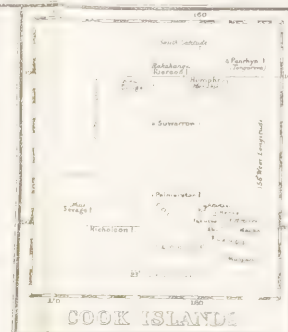
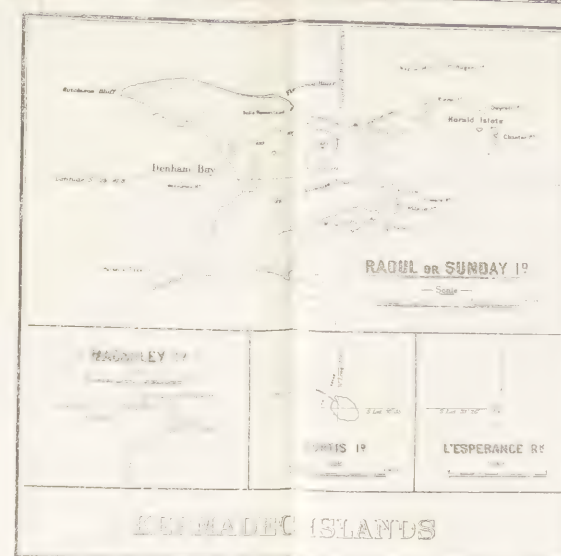
T A S M A N

S E A

Reference to State of Public Surveys, 1909.

Meridional Circuit
 Minor Triangulation
 Section Survey under check
 Section Survey built

MIDDLE ISLAND



C - 1A

C I F I C

45°

K I W A



SOUTH ISLAND (TE WAI-POUNAMU) NEW ZEALAND

SHOWING THE
STATE OF THE PUBLIC SURVEYS, 1909.

Scale of English Miles



- | Reference | thus | Reference |
|-------------------------------------|-------|-------------|
| Cities | ● | Major Towns |
| Boroughs | ○ | Minor Towns |
| Towns and villages | • | |
| Railways and stations | —+— | |
| Roads | — | |
| Boundaries of Land Districts | - - - | |
| Projection - Rectangular Tangential | | |

- Meridional Circuit
- Minor Triangulation
- Section Survey under check
- Section Survey built

T A S M A N S E A

South Latitude

Canterbury Bay

Regent's Bay

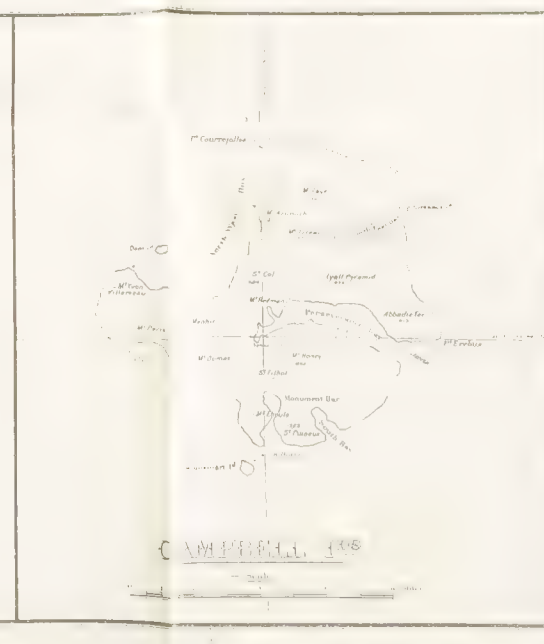
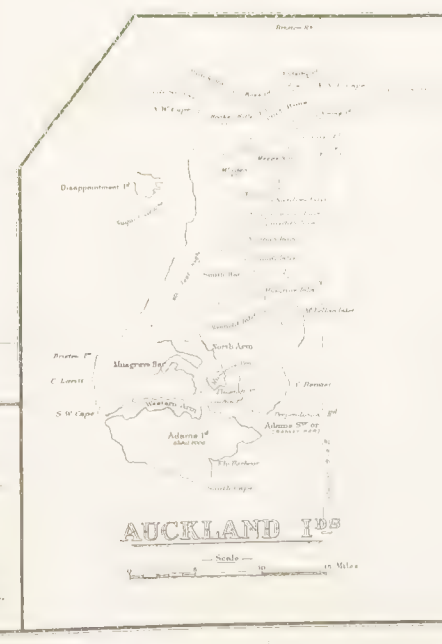
Banks Peninsula

S O U T H P A C I F I C

(TE MOANA-NUI-A-KIWA)

O C E A N

Stewart Island
(Rakiura)



C.—1B.

NEW ZEALAND.

DEPARTMENT OF LANDS.

REPORT

ON

STATE NURSERIES AND PLANTATIONS

FOR THE

YEAR 1908-9.

BY

WILLIAM C. KENSINGTON, I.S.O.,
UNDER-SECRETARY



WELLINGTON.

BY AUTHORITY: JOHN MACKAY, GOVERNMENT PRINTER.

1909.

1909.
NEW ZEALAND.

DEPARTMENT OF LANDS:
STATE NURSERIES AND PLANTATIONS
(REPORT ON).

Presented to both Houses of the General Assembly by Command of His Excellency.

SIR,—

Department of Lands, Wellington, 18th May, 1909.

I have the honour to submit herewith the report of the officer in charge of the State nurseries and plantations for the financial year ended 31st March last, prefacing it with an outline of the good work carried out under the direction of the late Chief Forester, Mr. H. J. Matthews, from 1896 up to the time of his death (27th April, 1909), and also indicating in a general manner the lines on which the Afforestation Branch of this Department is now proceeding.

The illustrations accompanying the report are for the purpose of showing the extremely slow growth of the principal native timber-trees as compared with some of the exotic trees grown at the State nurseries.

I have, &c.,

WILLIAM C. KENSINGTON,
Under-Secretary for Lands.

The Right Hon. Sir Joseph G. Ward, P.C., K.C.M.G.,
Minister of Lands and Commissioner of State Forests.

THE following report, giving the reafforestation operations for the past year, is clothed with a melancholy interest, as shortly after the close of the financial year Mr. H. J. Matthews, the late Chief Forester, was stricken with a severe illness, to which he succumbed about the end of April. The late Mr. Matthews was carrying on his official duties to the very last. Early in April he arranged with myself to meet him at Rotorua during Easter, so that together we might discuss several important matters on the ground, relative to the planting operations with prison labour. On my arrival at Rotorua I received a letter from him saying he felt so unwell that he was obliged to leave for Auckland to obtain medical advice, and about a month later the news of his death came to hand. To the late Mr. Matthews belongs the whole credit of the direction of the reafforestation operations. Selected for the work by the late Sir John McKenzie in 1896, Mr. Matthews relinquished his own successful nursery business at Dunedin, and took over the charge of the reafforestation operations, throwing all his energy into the work, and bringing to bear upon it all his technical experience. The first State nursery started was at Eweburn, in Otago, followed by one at Tapanui, also in Otago. Then followed the Rotorua Nursery, after which came the Seddon Nursery, in the Marlborough district; Hanmer, in North Canterbury; and Ruatangata, near Whangarei, in the Auckland district. From these nurseries the trees required for the grand plantations at Dusky Hill and Conical Hills, in Otago; Hanmer, in North Canterbury; Waiotapu and Waipa, in the Thermal Springs district; and Puhupuhi, near Whangarei, were obtained. The late Chief Forester was a whole-hearted supporter of the system of employing prison labour, and personally supervised the erection of each prison camp, going minutely into every detail to insure success. I have been most closely associated with him since 1902, and have always found him very enthusiastic and painstaking, sparing no personal trouble in carrying out all details. Some two years ago, at the request of the Commissioner of State Forests, he wrote a well-arranged book upon tree-planting in New Zealand, which was published by the Government Printer, and which work came in for universal praise. Last, but not least, of the fruits of Mr. Matthews's labours has been the training of experienced nurserymen and assistants, who are now able to carry on the work, without a break, so ably directed by the late Chief Forester. The sympathy

of the Department is extended to Mrs. Matthews, who was his constant companion, and herself supplied most beautifully developed photographs to illustrate not only her husband's annual reports, but also scenic reports for the Scenery Preservation Commission, of which the late Mr. Matthews was a most valued member.

The operations of the past year have been carefully compiled by Mr. Goudie, the Nurseryman-in-Charge at Rotorua, and are given with the usual detail. I have been able to acquaint myself personally with all the plantations, and to gain a complete insight into the working. I can say that whilst every economy possible is being practised, there is no diminution of the output of trees from the nurseries. Thanks to the care of the Justice Department, a full supply of prison labour is being kept up, and through this means the number of trees to be planted out during the ensuing season should be quite equal to last year's. As I have previously pointed out, the splendid income with which the reafforestation operations have been hitherto carried out has been almost entirely derived from the sale of kauri on the reserves proclaimed under the State Forests Act in the northern district. This source of income is now rapidly drawing to a close, and the necessary moneys for carrying on reafforestation must in future be chiefly granted from, and be a charge upon, the Consolidated Fund. It is therefore all the more necessary that the planting-work, where possible, shall now be carried on entirely by prison labour, in which course we are assured of the cordial co-operation of the Prisons Branch of the Justice Department.

FREE DISTRIBUTION OF TREES TO SETTLERS.

The question as to whether the Government should further encourage tree-planting, by distributing suitable trees to persons willing to devote land and time to this purpose, has been very generally discussed both by the Press itself and by letters written to the newspapers. No doubt the free distribution of trees would tend to materially increase the area of plantations, but it must be borne in mind that to carry this out in any general manner would necessitate doubling the number of employees in the nurseries, and also the number of trees grown, because with the present staff only sufficient trees are grown to meet the requirements of the labour available. Also, above all, the present income, including the expected grant from the Consolidated Fund, is only barely sufficient to meet the demands at the Department's present output of trees for the annual plantings.

PRISON CAMPS.

There are three prison camps in existence—one at Hanmer; one at Waiotapu, between Rotorua and Taupo; and one just newly erected on a most suitable site on the northern shore of Lake Rotokakahi, near Rotorua, which takes the place of the old prison camp at Waipa. I personally inspected the site of this new camp at Easter, and arranged with Mr. Goudie, the Nurseryman-in-Charge, and with Mr. J. T. Reid, the Chief Warder, the details of the buildings, water-supply, &c. Using this camp as a centre, there is fully five years' planting to be done, whilst at Waiotapu the planting can be continued for ten years.

GENERAL.

In last year's report the general question of forestry was dealt with, and, as it is intended by the Right Hon. the Minister of Lands to lay before Parliament during the session an exhaustive paper on New Zealand forests generally, the subject will not be further treated upon in this report.

REPORT BY THE OFFICER IN CHARGE.

To the Under-Secretary for Lands.

I HAVE the honour to submit herewith the thirteenth annual report of the Afforestation Branch. The past year has been a most successful one at all the stations, owing chiefly to the excellent weather conditions experienced throughout the Dominion.

Prison Labour.—The total value of work done by prisoners at the three prison camp plantations—viz., Hanmer Springs, Whakarewarewa, and Waiotapu—is £4,894 16s 5d., making an average for each of the 58'99 men employed of £82 19s. 6d. These results go to prove that the employment of prisoners at this class of work has been very successful, and might be advantageously extended. The majority of the men like the work, and take an interest in it, thus making for success.

At the Waipa Prison, Whakarewarewa Plantation, all the land within a radius of a mile and a quarter has been planted, and it has been necessary to select a site to which the camp can be shifted. A suitable place has been chosen at Lake Rotokakahi, and the new camp will probably be ready for occupation about the end of May. The land within easy distance of this site will provide employment for four or five years. The Inspector of Prisons and his staff deserve our best thanks for their co-operation and assistance generally in carrying on the works at the camps.

Starborough Nursery.—Owing to the repeated failures amongst trees planted in this district it was decided to close down the nursery, and also the Dumgree Plantation. During the past year the trees which remained in the nursery were transferred to the Tapanui district, whilst the tools, implements, &c., were distributed amongst the various stations as required. Most of the land was sown down in oats, which resulted in a yield of 1,250 bags of chaff and 200 bags of feed oats, and this was transferred to the North Island stations.

The expenditure at these two stations, which is shown in the summary, was incurred in the above-mentioned works.

Kurow Nursery.—The remainder of the trees and implements at this station were transferred during the year to the Tapanui district.

In the following tables the work of this branch is summarised:—

TABLE A.—SUMMARY OF RESULTS.

Nursery or Plantation.	Number of Trees raised, 1908-9.	Total number of Trees raised, 1896 to 1909.	Values of Same.		Number of Trees in Nurseries or Plantations at 31st March, 1909.	Number of Trees planted on New Area, 1908-9.	Area planted in 1908-9.			Total Area planted at 31st March, 1909.		
			£	s. d.			A.	R.	P.	A.	R.	P.
Eweburn Nursery ..	667,600	4,148,717	8,675	3 8	1,584,340	..	..	..	..	..	..	..
Hanmer Springs Nursery ..	2,899,200	7,340,531	11,315	2 7	4,554,650	..	..	..	..	..	..	..
Kurow Nursery ..	..	219,000	223	3 0	..	..	..	..	..	..	..	..
Tapanui Nursery ..	2,527,000	15,664,733	34,567	0 10	5,360,250	..	..	..	..	..	..	..
Starborough Nursery ..	..	3,223,290	6,918	8 11	..	..	..	..	..	..	..	..
Rotorua Nursery ..	4,395,500	30,662,309	57,873	0 9	8,369,500	..	..	..	..	..	..	..
Ruatangata Nursery ..	680,000	2,317,868	5,013	13 9	832,500	..	..	..	..	..	..	..
Dusky Hill Plantation ..	..	..	*	*	1,973,392	697,225	300	1 32	..	806	0 0	..
Conical Hills Plantation ..	..	..	*	*	3,777,120	463,541	170	1 07	..	1,252	2 7	..
Gimmerburn Plantation ..	..	..	*	*	487,695	..	..	..	..	173	1 0	..
Naseby Plantation ..	..	..	*	*	389,285	29,100	10	2 0	..	143	0 0	..
Hanmer Springs Plantation ..	..	..	*	*	2,431,230	568,060	208	0 0	..	876	0 0	..
Kaingaroa Plains Plantation ..	..	..	*	*	44,275	..	..	..	..	21	0 0	..
Dumgree Plantation ..	..	..	*	*	350,000	..	..	..	..	469	3 0	..
Raincliff Plantation ..	..	..	*	*	50,000	..	..	..	..	206	3 0	..
Ruatangata Plantation ..	..	..	*	*	..	..	..	..	..	22	0 0	..
Waiotapu Plantation ..	..	..	*	*	9,095,359	2,162,425	794	2 0	..	3,523	0 0	..
Whakarewarewa Plantation ..	..	..	*	*	6,883,226	1,841,100	838	2 0	..	3,157	2 0	..
Puhipuhi Plantation ..	..	..	*	*	1,488,236	470,028	387	0 0	..	1,512	0 0	..
Waitahuna Plantation ..	..	..	*	*	30,525	..	..	..	..	12	1 14	..
Domains, reserves, &c. ..	..	..	..	..	133,632	..	..	..	..	..	..	..
Totals ..	11,169,300	63,576,448	124,585	13 6	47,835,217	6,231,479	2,709	9 39	..	12,175	0 21	..

* Reliable estimates of values not available.

TABLE B.—SUMMARY OF EXPENDITURE AND VALUES.

Name of Station.	Expenditure for Year ending 31st March, 1909.			Expenditure from September, 1896, to 31st March, 1909.			Value of Stock and Improvements for Year ending 31st March, 1909.			Value of Stock, Improvements, &c., from September, 1896, to 31st March, 1909.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Eweburn Nursery ..	773	13	11	10,311	15	6	2,805	13	6	7,589	1	1
Hanmer Springs Nursery ..	1,590	13	3	5,514	1	8	7,678	6	2	9,690	11	5
Tapanui Nursery ..	2,024	7	10	17,270	4	11	8,961	4	5	16,285	0	5
Ruatangata Nursery ..	1,431	0	8	7,444	7	3	2,134	18	7	5,292	4	11
Rotorua Nursery ..	5,091	5	10	30,618	4	10	13,434	14	2	20,902	7	7
Starborough Nursery ..	567	5	11	9,256	7	1	*	*	*	*	*	*
Kurow Nursery ..	..	..	..	3,070	2	7	*	*	*	*	*	*
Conical Hills Plantation ..	2,190	14	1	11,877	12	0	*	*	*	*	*	*
Dusky Hill Plantation ..	1,185	5	9	11,499	15	2	*	*	*	*	*	*
Gimmerburn Plantation ..	366	11	11	2,366	6	2	*	*	*	*	*	*
Naseby Plantation ..	193	2	2	2,266	12	7	*	*	*	*	*	*
Raincliff Plantation ..	..	..	..	1,104	12	5	*	*	*	*	*	*
Hanmer Springs Plantation ..	1,309	17	5	5,684	1	6	*	*	*	*	*	*
Dumgree Plantation ..	155	2	6	10,017	10	5	*	*	*	*	*	*
Whakarewarewa Plantation ..	4,608	7	1	18,150	0	6	*	*	*	*	*	*
Waiotapu Plantation ..	2,154	1	9	7,363	19	0	*	*	*	*	*	*
Kaingaroa Plains Plantation ..	..	..	..	368	18	2	*	*	*	*	*	*
Puhipuhi Plantation ..	1,697	18	4	6,486	11	8	*	*	*	*	*	*
Waitaki Plantation ..	..	..	..	403	14	5	*	*	*	*	*	*
Waitahuna Plantation ..	14	10	6	183	0	9	*	*	*	*	*	*
Domains, Reserves, &c. ..	..	..	..	431	13	1	..	..	..	..	..	..
Clerical assistance ..	65	12	8	739	7	8	..	..	..	..	..	..
Postages and telegrams ..	..	..	..	60	5	4	..	..	..	..	..	..
Contingencies: Telephones, stationery, &c, travelling allowances and expenses	621	15	2	1,653	8	7	..	..	..	..	..	..
Totals ..	26,041	6	9	164,142	13	3	35,014	16	10	59,759	5	5

* Reliable estimates of values not available.

TABLE C.—OUTPUT OF TREES FROM NURSERIES.

Nursery.	During 1908-9.		Since 1896.	
	Number.	Value.	Number.	Value.
		£ s. d.		£ s. d.
Eweburn	157,050	428 12 7	2,564,377	6,047 18 10
Tapanui	700,035	2,066 7 6	10,368,083	26,268 1 4
Hanmer Springs	736,340	1,609 6 11	2,307,546	5,588 17 6
Rotorua	4,491,510	9,541 1 3	22,292,809	46,460 5 9
Ruatangata	536,450	1,456 12 6	1,488,245	4,019 10 10
Kurow	62,200	66 3 6	172,460	278 18 6
Starborough	575,920	1,636 6 0	3,059,610	6,934 1 11
Totals	7,259,505	16,804 10 3	42,253,130	95,597 14 8

TABLE D.—MINIMUM AND MAXIMUM READINGS OF THERMOMETER (FAHRENHEIT) AND RAINFALL AT VARIOUS STATIONS FOR THE YEAR.

Station.	Temperature.		Rainfall.	
	Minimum.	Maximum.	Inches.	Number of Days.
	Deg.	Deg.		
Eweburn Nursery	2	84	21·78	111
Tapanui Nursery	24	88	39·92	157
Hanmer Springs Nursery... ..	17	83	44·77	151
Rotorua Nursery	23	87	52·10	165
Ruatangata Nursery	28	82	59·33	181
Waiotapu Plantation	17	86	42·06	93
Puhipuhi Plantation	24	87	71·45	169

TABLE E.—AVERAGE NUMBER OF WORKMEN EMPLOYED DAILY AT THE VARIOUS NURSERIES AND PLANTATIONS DURING THE YEAR 1908-9.

Station.	Free Labour.	Prison Labour.	Station.	Free Labour.	Prison Labour.
	No.	No.		No.	No.
Eweburn Nursery	5·00	...	Conical Hills Plantation ...	15·52	...
Tapanui Nursery	12·11	...	Hanmer Springs Plantation	3·00	13·00
Hanmer Springs Nursery ...	9·00	...	Dungree Plantation*	...	...
Starborough Nursery*	...	...	Whakarewarewa Plantation	32·72	13·16
Rotorua Nursery	31·62	...	Waiotapu Plantation	8·46	32·83
Ruatangata Nursery	9·78	...	Puhipuhi Plantation	9·92	...
Gimmerburn Plantation ...	1·56	...	Waitahuna Plantation	00·5	...
Naseby Plantation	1·20	...			
Dusky Hill Plantation	9·91	...		149·85	58·99

* Particulars not available.



Podocarpus spicatus (BLACK-PINE)—7 YEARS OLD, 19 IN. HIGH.

To face p. 4.]



Acer pseudo-platanus (SYCAMORE)—7 YEARS OLD, 13 FT. HIGH.



Dacrydium intermedium (YELLOW SILVER-PINE)—7 YEARS OLD, 42 IN.
HIGH.



Fraxinus excelsior (ENGLISH ASH)—7 YEARS OLD, 12 FT. HIGH.

The following are the reports from various stations :—

EWEBURN NURSERY, NEAR NASEBY, OTAGO.

(Area, 49 acres; altitude, 1,400 ft.)

The rainfall during the year has been much heavier than last, the total being 21·78 in., which fell on 111 days, the maximum fall being 3·60 in. in January. This is 8·40 in. in excess of last year.

The highest reading of the thermometer was 84°, on the 8th March, and the lowest 2° (30° of frost), on the night of the 30th July. Frost occurred on 133 nights.

The general growth of nursery stock has been very satisfactory, owing to the heavy rainfall. Seeds were sown as usual in October, also a second sowing in December, and both have germinated very well.

Of the trees lined out, *Pinus ponderosa*, *Pinus Bethamiana*, *Pinus Austriaca*, and *Larix Europæa* have made the most satisfactory growth. *Pinus Laricio*, being somewhat slower, will require to be left for another season before being transferred to the plantation for planting out permanently.

The number of trees lined out was 470,960, at an average cost of 2s. 10d. per thousand; also 90,000 were lined in at an average cost of 1s. 0½d. per thousand.

The number of trees sent to Government plantations was 157,050, their total value being £428 12s. 7d.

The number of trees sent out to date amounts to 2,564,377, their total value being £6,047 18s. 10d.

The number of trees in the nursery at the 31st March, 1909, was 1,584,340, and their value £2,627 4s. 10d. Details will be found on Schedules 1 to 4.

The average number of men employed was five (wages).

Appended are the meteorological records for the year :—

Meteorological Returns.

Month.	Rainfall.	Number of Days Rain fell.	Maximum Temperature.	Date.	Minimum Temperature.	Date.	Number of Days on which Frost occurred.
1908.	Inches.		Degrees.		Degrees.		
April ...	1·60	10	71	1st	24	30th	12
May ...	1·18	11	64	3rd	21	27th	21
June ...	1·60	16	58	12th	21	21st	22
July ...	3·50	11	44	20th	2	30th	29
August ...	1·30	4	50	29th	7	12th	30
September ...	0·76	5	65	28th	26	24th	5
October ...	1·21	11	81	8th	29	14th	5
November ...	0·63	6	81	27th	29	10th	4
December ...	2·60	10	75	29th	27	9th	3
1909.							
January ...	3·60	14	81	22nd	33	1st	...
February ...	1·03	3	80	27th	28	21st	1
March ...	2·77	10	84	8th	30	14th	1
Totals ...	21·78	111	...	...	...	...	133

Statement of Expenditure.

	£	s.	d.
Amount at 31st March, 1908	9,538	1	7
Tree-growing	325	6	6
General maintenance and repairs	174	7	2
Horse-feed, purchased and grown	40	11	6
Tree-seeds	54	12	0
Tools, implements, &c.	2	12	0
Fuel	9	17	6
Travelling-expenses	9	3	6
Miscellaneous works	6	17	1
Proportion of Nurseryman's salary	126	0	0
Supervision	24	6	8
	£10,311	15	6

Value of Stock, Improvements, &c

	£	s.	d.	£	s.	d.	£	s.	d.
Amount at 31st March, 1908	...	...	...	6,540	2	11			
Less value of trees at 31st March, 1908	1,747	5	4						
Less horse-feed in stock at 31st March, 1908		9	10	0					
				1,756	15	4			
Trees, as per Schedule 1	...	...	...				4,783	7	7
" " 2	...	...	...				704	18	0
" " 3	...	...	...				790	13	0
Tools and implements	...	...	...				1,131	13	10
Improved value	...	...	...				2	12	0
Horse-feed in stock	...	...	...				150	6	8
Value of young horses—increased value during year	...	...	...				15	10	0
							10	0	0
							£7,589	1	1

Summary.

Value of present stock and general improvements	...	...	7,589	1	1
Value of trees sent out since initiation of nursery	...	...	6,047	18	10
			13,636	19	11
Expenditure to date	...	...	10,311	15	6
Credit balance	...	...	£3,325	4	5

Stock in Hand.

SCHEDULE 1.—Details of One-year-old Trees, grown 1908-9. (Thirteenth Crop.)

Name of Tree.	Number in Seed-beds.	Height in Inches.	Amount of Seed sown.	Value per Thousand.	Total Value.	Remarks.
			Lb.	£ s. d.	£ s. d.	
Pinus Laricio	340,200	2	112	1 0 0	340 4 0	Strong plants.
" Benthamiana	43,200	1½	10	1 5 0	54 0 0	"
" ponderosa	106,000	1½	28	1 5 0	132 10 0	"
Larix Europæa	178,200	1	112	1 0 0	178 4 0	"
Totals	667,600	..	262	..	704 18 0	

SCHEDULE 2.—Two-year-old Trees, grown 1907-8. (Twelfth Crop.)

Name of Tree.	Number in Seed-beds.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Pinus Laricio	250,000	3	1 5 0	312 10 0	Strong plants.
" Benthamiana	30,000	4-6	1 10 0	45 0 0	"
" " (true)	22,100	4-6	1 10 0	33 3 0	"
" ponderosa	40,000	4-6	1 10 0	60 0 0	"
Larix Europæa	110,000	6-12	1 5 0	137 10 0	"
" (lined in)	90,000	6-12	2 5 0	202 10 0	"
Totals	542,100	..	..	790 13 0	

SCHEDULE 3.—Three-year-old Trees, grown 1906-7. (Eleventh Crop.)

Name of Tree.	Number in Nursery Rows.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Pinus Austriaca	41,540	4-6	3 0 0	124 12 4	Good plants.
" Laricio	200,000	4-6	3 0 0	600 0 0	Medium growth.
" ponderosa	47,400	4-6	3 0 0	142 4 0	Very strong.
" Jeffreyii	1,300	4-6	3 5 0	4 4 6	"
" Bethamiana	16,000	4-6	3 5 0	52 0 0	"
Larix Europæa	9,100	8-12	3 0 0	27 6 0	"
"	55,400	8-12	3 0 0	166 4 0	"
Pyrus aucuparia	3,450	8-12	4 0 0	13 16 0	"
Betula alba	450	8-12	3 0 0	1 7 0	"
Totals	374,640	..	..	1,131 13 10	

SCHEDULE 4.—Trees sent out from Nursery to Plantations, &c., 1908-9.

Where sent.	Name of Tree.	Number.	Value per Thousand.	Total Value.
			£ s. d.	£ s. d.
Gimmerburn Plantation	Pinus Austriaca	36,885	3 0 0	110 12 1
	" Laricio	4,750	3 0 0	14 5 0
	" ponderosa	10,000	3 0 0	30 0 0
	Larix Europæa	1,750	1 5 0	2 3 9
	" "	12,400	4 0 0	49 12 0
Hon. R. McNab	" "	33,675	3 0 0	101 0 6
	Pinus montana	2,000	..	..
	Total	101,460		307 14 4
Survey paddock	Pinus ponderosa	14,275	3 0 0	42 16 6
	" "	11,875	1 5 0	14 16 10
	" Bethamiana	4,050	1 5 0	5 1 3
	Larix Europæa	1,000	1 5 0	1 5 0
	Cytisus vulgare	21,650	2 5 0	48 14 3
	Total	52,850		112 13 10
Gimmerburn	Pinus Austriaca	215	3 0 0	0 12 11
Cemetery Trust	" ponderosa	275	3 0 0	0 16 6
	Total	490		1 9 5
Various domains	Pyrus aucuparia	1,000	3 0 0	3 0 0
	Cytisus vulgare	1,000	3 0 0	3 0 0
	Total	2,000		6 0 0
Tourist Department, Queenstown..	Pyrus aucuparia	50	3 0 0	0 3 0
Tapanui Nursery	" "	200	3 0 0	0 12 0
Totals .. ..	.. ..	157,050	..	428 12 7

A. W. ROBERTS,
Nurseryman in Charge.

HANMER SPRINGS NURSERY.

(Area, 40 acres; approximate altitude, 1,225 ft.)

Rain fell on 151 days during the past year, the total fall recorded being 44·77 in. The maximum monthly fall was recorded in January, when 7·63 in. fell in 15 days. The maximum temperature registered during the year was 83° Fahr., on 19th February, and the minimum 17° Fahr., on 12th July.

The general weather-conditions experienced throughout the past year were, on the whole, fairly favourable for tree-growth, although the lined-out trees were somewhat retarded in growth during November by the exceptionally dry weather experienced during that month.

The three-year-old trees of all classes have made exceptionally good growth during the year, and these are all suitable for transferring to the plantation during the coming planting season.

Two-year-old lined-out larch are an exceptionally fine crop, of an average height of 12 in., and the whole of this crop can be transferred to the plantation this season.

The various species of two-year-old pines have made fair growth; but a large proportion of *Pinus Laricio* will be rather small for transferring to the plantation during the coming season. Amongst the pines lined out during the year the average number of deaths is about 5 per cent., and there are practically no failures amongst larch.

Seed-sowing was commenced on the 7th November, and completed on the 12th of the same month, the weather being favourable while this work was in progress.

The crop of seedling larch is a particularly fine one, the average height of these plants being 3 in., and the approximate number in the seed-beds is 1,600,000. *Pinus Laricio* seedlings are a particularly sturdy crop, and the other varieties of pine seedlings are also very good.

Transplanting seedlings was commenced on the 17th August, and completed on the 19th October, the number of trees dealt with being 1,306,261, at a labour-cost of 1s. 10d. per thousand.

The number of trees raised from seed during the year was 2,899,200, valued at £2,939 3s.; and the number of trees raised in the nursery to date since its inception is 7,340,531, valued at £11,315 2s. 7d.

The total number of trees in the nursery at 31st March was 4,554,650, valued at £7,033 18s.

Trees transferred to the plantation during the year numbered 736,340, valued at £1,699 6s. 11d., and the total number of trees transferred to the plantation to date is 2,307,546, valued at £5,588 18s. 6d. The estimated number of trees available for transferring to the plantation during the present season is 1,200,000.

During the year good progress has been made with the general improvement of the nursery; the formation of extension area has been completed, and all roads throughout the nursery have been gravelled where absolutely necessary. The appearance of the nursery has been much improved during the year by the planting of shelter and ornamental shrubs on spare areas of land, also by sowing grass amongst shrubs.

The water-supply obtained from Hanmer Township supply continues satisfactory, and an abundant supply of good water is always available for all nursery purposes.

The erection of new five-stall stable, commenced last year, was completed during April, and the old stable converted into an open shed for the storage of implements; a lean-to was also erected, adjoining stable, for the purpose of storing harness, &c. The implement-shed is now too small for the storage of all implements and vehicles, and it is necessary to leave two drays and a wagon outside; this will necessarily cause depreciation in their value.

Further accommodation is urgently required at the Nurseryman's quarters, as the present cottage consists of three small rooms, which are quite inadequate for requirements.

For the purpose of providing additional paddock-accommodation for the horses, 10 acres of grasses and clover were sown during September, with very favourable results. The horse-paddocks now comprise 25 acres of good pasture.

The average number of hands employed daily during the year was six men and three boys.

Thirty-five tons of oat-sheaf of excellent quality and 5 tons of swedes and horse-carrots were grown during the year for horse-feed.

Schedules are appended of trees in stock and sent out during the year, also details of expenditure and values for the year and to date.

The following is a record of the rainfall and temperature for the year :—

Month.	Rainfall.	Number of Days Rain fell.	Maximum Tempera- ture.	Date.	Minimum Tempera- ture.	Date.
1908.	Inches.		Degrees.		Degrees.	
April ...	4.10	14	72	2nd	29	20th
May ...	4.45	11	70	3rd	26	30th
June ...	3.37	13	63	5th	27	3rd
July ...	6.79	17	57	23rd	17	12th
August ...	2.28	10	58	30th	21	10th
September ...	3.25	12	69	29th	29	20th
October ...	5.05	18	81	12th	30	29th
November ...	0.86	9	79	20th	34	13th
December ...	2.11	17	70	8th	33	10th
1909.						
January ...	7.63	15	82	23rd	35	2nd
February ...	0.68	5	83	19th	42	25th
March ...	4.20	10	80	7th	32	30th
Totals ...	44.77	151	...	...	...	...

Statement of Expenditure.

	£	s.	d.
Amount at the 31st March, 1908	3,923	8	5
Tree-growing	727	4	2
General maintenance and repairs	139	13	2
Nursery-formation	17	6	5
Horse-feed purchased and grown	118	16	8
Manures	15	9	6
Tree-seeds	96	15	0
Tools, implements, &c.	85	4	9
Water-supply	106	19	4
Buildings	110	1	1
Fencing	38	6	7
Miscellaneous works	8	6	7
Proportion of Nurseryman's salary	90	0	0
Supervision	36	10	0
	£5,514	1	8



Agathis Australis (KAURI)—7 YEARS OLD, 8 IN. HIGH.



Larix Europaea (EUROPEAN LARCH)—7 YEARS OLD, 20 FT. HIGH.



Pinus resinosa (RED-PINE)—7 YEARS OLD, 27 IN. HIGH.



Pinus austriaca (AUSTRIAN PINE)—7 YEARS OLD, 9 FT. HIGH.

Value of Stock, Improvements, &c.

	£	s.	d.	£	s.	d.	£	s.	d.
Amount at 31st March, 1908	6,917	13	9			
Less value of trees at 31st March, 1908	4,865	8	6			
Less horse-feed in stock at 31st March, 1908	40	0	0			
				4,905	8	6			
Trees, as per Schedule 1				2,012	5	3
" " 2				2,939	3	0
" " 3				2,627	15	0
Tools and implements				85	4	9
Water-supply				106	19	4
Nursery-formation				17	6	5
Fencing...				38	6	7
Buildings				110	1	1
Improved value				126	10	0
Horse-feed in stock				160	0	0
							£9,690	11	5

Summary.

	£	s.	d.
Value of present stock and general improvements	9,690 11 5
Value of trees sent out since initiation of nursery	5,588 17 6
			15,279 8 11
Expenditure to date	5,514 1 8
Credit balance	£9,765 7 3

Stock in Hand.

SCHEDULE 1.—Details of One-year-old Trees, grown 1908-9. (Seventh Crop.)

Name of Tree.	Number in Seed-beds.	Height in Inches.	Seed sown.	Value per Thousand.	Total Value.	Remarks.
			Lb.	£ s. d.	£ s. d.	
<i>Larix Europæa</i>	1,600,000	1-4	252	1 0 0	1,600 0 0	Excellent crop.
<i>Pinus Laricio</i>	884,000	2½	112	1 0 0	884 0 0	"
" <i>ponderosa</i>	280,000	2½	30	1 0 0	280 0 0	"
" <i>Benthamiana</i>	92,000	2½	12	1 5 0	115 0 0	"
" <i>muricata</i>	7,000	3	1	1 0 0	7 0 0	"
<i>Alnus glutinosa</i>	700	6	10	0 15 0	0 10 6	Very thin crop.
<i>Chamæcyparis Lawsoniana</i>	16,000	1½	2	1 10 0	24 0 0	Good crop.
<i>Thuja gigantea</i>	17,000	1½	1	1 10 0	25 10 0	"
<i>Pseudo-tsuga taxifolia</i>	1,500	2	8	1 5 0	1 17 6	Thin crop.
<i>Picea sitchensis</i>	1,000	1	5	1 5 0	1 5 0	"
Totals	2,899,200	..	..	..	2,939 3 0	

SCHEDULE 2.—Details of Two-year-old Trees, grown 1907-8. (Sixth Crop.)

Name of Tree.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
<i>Larix Europæa</i>	674,000	10-16	2 5 0	1,516 10 0	Excellent crop.
<i>Pinus Laricio</i>	366,000	2-4	2 5 0	823 10 0	Fair crop.
" <i>ponderosa</i>	55,000	4	2 5 0	123 15 0	Good crop.
" <i>Benthamiana</i>	19,000	4	2 10 0	47 10 0	"
" (var.)	13,000	4	2 10 0	32 10 0	"
<i>Pseudo-tsuga taxifolia</i>	17,000	6	2 10 0	42 10 0	Fair crop.
<i>Betula alba</i>	10,000	24	2 5 0	22 10 0	Excellent crop.
<i>Robinia pseudo-acacia</i>	11,000	4-12	1 10 0	16 10 0	Fair crop.
<i>Alnus glutinosa</i>	650	14	2 0 0	1 6 0	Good crop.
<i>Cotoneaster Simmondsii</i>	800	15	1 10 0	1 4 0	"
Totals	1,166,450	..	..	2,627 15 0	

SCHEDULE 3.—Three-year-old Trees, grown 1906-7. (Fifth Crop.)

Name of Tree.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
<i>Larix Europæa</i>	117,000	18	3 0 0	351 0 0	Excellent crop.
<i>Pinus Laricio</i>	291,000	8-12	3 0 0	873 0 0	Good crop.
" <i>Austriaca</i>	81,000	6-9	3 0 0	243 0 0	"
Totals	489,000	..	..	1,467 0 0	

SCHEDULE 4.—Trees transferred to Hanmer Springs Plantation.

Name of Tree.	Number.	Value per Thousand.	Total Value.	Remarks.
		£ s. d.	£ s. d.	
<i>Larix Europæa</i>	378,985	2 5 0	852 14 0	Very good growth.
<i>Pinus Laricio</i>	211,330	2 5 0	475 10 0	"
" <i>ponderosa</i>	50,425	2 5 0	113 9 0	"
" <i>muricata</i>	6,690	3 0 0	20 1 4	"
<i>Betula alba</i>	1,585	3 0 0	4 15 1	Good growth.
<i>Picea sitchensis</i>	56,480	3 0 0	169 8 10	Fair growth.
<i>Alnus glutinosa</i>	16,845	2 0 0	33 13 8	"
<i>Pseudo-tsuga taxifolia</i>	11,000	2 10 0	27 10 0	"
<i>Robinia-pseudo acacia</i>	3,000	0 15 0	2 5 0	"
Totals	736,340	..	1,699 6 11	"

T. B. CURLE,
Nurseryman in Charge.

TAPANUI NURSERY.

(Area, 120 acres; altitude, 500 ft.)

Rain fell on 157 days, with a total precipitation of 39·92 in., the maximum monthly fall being 8·99 in., in July. The highest shade temperature recorded was 88°, on the 5th February, and the lowest 24°, on the 12th July.

On the whole, the season has been most favourable for nursery operations. Excessive rain fell during July, but in the two succeeding months, when transplanting of seedlings was in progress, ideal weather-conditions prevailed, and enabled the work to be carried out cheaply and satisfactorily. Towards mid-summer a dry spell, lasting about two months, was experienced, but trees had developed sufficiently by that time to withstand the partial drought, which rendered general hoeing and weeding an easy matter.

Much success has attended nursery operations this season, but the destructive grass grubs still exist in large numbers, and were responsible for the failure of some thousands of larch.

Small amounts of oak and ash were sown during the winter, and gave fair results, but the latter seed again proved to be somewhat unsatisfactory, and this necessitated heavy sowing in drills. The present supply of ash-seed in pits, however, is in excellent condition, and a favourable germination of same may be anticipated in the coming spring.

The main sowing was commenced on the 10th October, and completed ten days later. The estimated number of seedlings raised is 2,527,000, valued at £2,590 10s.

Although the larch beds are not so successful as in the previous year, fully half a million plants should be sturdy enough for transference to lines next spring. The pines are an even crop, and compare favourably with former results. An experimental sowing of 12 oz. of *Thuja gigantea* produced over 30,000 small trees; but a trial of the new Abyssinian fibre plant, *Ka fumba*, was not so successful, as after the seed had germinated well, and plants had reached a height of about 5 in., an early frost destroyed the lot.

Transplanting of seedlings was commenced on the 17th of August, and during the ensuing seven weeks 1,367,500 trees were lined out, at a cost of 2s. 2d. per thousand. 770,000 smaller plants were also "lined in closely," at a cost of 5½d. per thousand.

A system of closer planting was adopted this year, and the labour-cost of dealing with the trees was greatly reduced. Nearly the whole of the one-year-old larch were transferred to lines, and a finer lot of trees has not been grown at this station. A large proportion have developed with remarkable vigour, and will require to be given specially sheltered situations on plantations. The lined-in trees average about 12 in. in height, and are most suitable for planting by the bar method.

The removal of about 40,000 *Pinus Laricio*, one-year-olds, to lines was attended with an unusual percentage of deaths, and this should prove conclusively that the system adopted here of allowing these pines to remain two years in beds before transplanting gives the best results. A number of *Sequoia sempervirens*, from Kurow Nursery, were lined out, and, although they have up to the present made excellent headway, it is more than likely that heavy frosts will establish the unsuitability of this class of tree for our locality.

Buildings, Improvements.—The steady increased expenditure in the item horse-shoeing and repairs was responsible for the Department's decision to carry on blacksmithing work at the nursery, and accordingly a roomy smithy, with all necessary appliances, was erected, and all horse-shoeing, plantation and nursery repairs are effected by the blacksmith, principally during wet weather, whilst the remainder of his time is devoted to general nursery work. The main stable building has been rendered considerably more serviceable by the addition of two extra stalls and loose-box for young horses, and the inclusion of a much-wanted shed for wagon and dray.

Arrangements are also well in hand for the extension of sizing-shed, as the amount of room available last winter was quite inadequate for satisfactorily dealing with nursery stock.

An area of about 12 acres used as a horse-paddock was drained with 2 in. tiles, ploughed, and sown in black oats, and extra returns fully justified the extra labour incurred.

About 11 acres of ground on lower portion of nursery was sown down in grass, and the erection of about 18 chains of fencing permits the using of this block for grazing purposes.

Shelter plantations are growing rapidly, and are now giving sufficient protection to the seed-beds without having to resort to our customary artificial method of scrub fencing. 1,200 shelter-trees, principally *Pinus muricata*, were planted on the boundary-line adjoining cemetery reserve, and these have, with few exceptions, grown well.

It is gratifying to report that the attack on *Pittosporum* hedges by the native scale has not been so persistent as in the two former years, and there is every reason to believe that the spread of the disease has been checked by judicious spraying.

The average number of men employed was 12·11.

Horse-feed to the value of £103 9s. 7d. was harvested from 23 acres. The oat-crop was a decided success, and there is every likelihood that our stock of oaten sheaf will more than meet requirements. About 9 tons of rye and clover and 3 tons of carrots were grown on spare blocks, but the latter produce is somewhat below the average quality.

The following items of labour were also included in list of expenditure: Formation and gravelling of roads, cultivating plantations, painting outbuildings, attending shrubbery and general maintenance.

Statements of expenditure and values are appended.

For the coming season arrangements are being made for the transference to local plantations of about 1,250,000 trees.

The following is a record of rainfall and temperature for the year :—

Month.	Rainfall.	Number of Days Rain fell.	Highest Reading of Ther- mometer.	Date.	Lowest Reading of Ther- mometer.	Date.
1908.	Inches.		Degrees.		Degrees.	
April	3·32	17	71	3rd	28	19th
May	1·86	11	65	6th	26	25th
June	4·29	16	66	5th	26	20th
July	8·89	18	52	4th	24	12th
August	2·76	10	56	14th	26	26th
September	0·86	6	69	15th	27	16th
October	3·74	16	78	11th	36	14th
November	2·04	12	75	29th	38	24th
December	4·14	16	79	26th	32	9th
1909.						
January	4·80	19	86	23rd	33	6th
February	1·19	7	88	5th	40	19th
March... ..	2·03	9	86	9th	40	29th
Totals	39·92	157	...	...	...	...

Statement of Expenditure.

	£	s.	d.
Amount at the 31st March, 1908	15,245	17	1
Tree-growing	1,150	15	6
General maintenance and repairs	150	11	1
Nursery-formation	82	19	10
Horse-feed purchased and grown	104	7	6
Manures	18	5	11
Tree-seeds	116	16	3
Tools, implements, &c.	78	1	6
Buildings, smithy and additions to stable	118	17	9
Fencing	9	2	1
Miscellaneous works	20	3	9
Proportion of Nurseryman's salary	150	0	0
Supervision	24	6	8
	£17,270	4	11

Value of Stock, Improvements, &c.

	£	s.	d.	£	s.	d.	£	s.	d.
Amount at 31st March, 1908	14,170	3	3			
Less value of trees at 31st March, 1908	6,738	19	9			
Less horse-feed in stock at 31st March, 1908	102	5	0			
Less tools written off during year	5	2	6			
				6,846	7	3			
Trees, as per Schedule 1				7,323	16	0
" " 2				2,590	10	0
" " 3				3,871	16	6
Tools and implements				1,907	0	6
Nursery-formation				78	1	6
Fencing				82	19	10
Buildings				9	2	1
Improved value				118	17	9
Horse-feed in stock				174	6	8
Value of young horses bred, or increased value, during year				103	9	7
							25	0	0
							£16,285	0	5

Summary.

	£	s.	d.
Value of present stock and general improvements	...	...	...
Value of trees sent out since initiation of nursery	...	...	...
	42,553	1	9
Expenditure to date	...	...	...
	17,270	4	11
Credit balance	...	...	...
	£25,282	16	10

Stock in Hand.

SCHEDULE 1.—Details of One-year-old Trees, grown 1908-9. (Twelfth Crop.)

Name of Tree.	Number in Seed-beds.	Height in Inches.	Seed sown.	Value per Thousand.	Total Value.	Remarks.
			Lb.	£ s. d.	£ s. d.	
Larix Europæa	1,500,000	2-5	308	1 0 0	1,500 0 0	Excellent crop.
Pinus Laricio	400,000	1½	112	1 0 0	400 0 0	Fine strong plants.
" ponderosa	300,000	1½	36	1 0 0	300 0 0	"
" Benthamiana	100,000	1½	14	1 5 0	125 0 0	"
Pseudo-tsuga taxifolia	30,000	3	10	1 5 0	37 10 0	Well-grown plants.
Picea sitchensis	75,000	1	5	1 5 0	93 15 0	Fair crop.
Fraxinus excelsior	50,000	3	3 sacks	1 0 0	50 0 0	Germinated unevenly.
Betula alba	1,000	2	3 lb.	1 0 0	1 0 0	Germinated poorly.
Alnus glutinosa	11,000	4	3 lb.	0 15 0	8 5 0	Strong plants.
Quercus pedunculata	30,000	6	1½ sacks	1 0 0	30 0 0	Well-grown plants.
Thuja gigantea	30,000	1	¾ lb.	1 10 0	45 0 0	Germinated splendidly.
Totals..	2,527,000	..	..	..	2,590 10 0	

SCHEDULE 2.—Two-year-old Trees, grown 1907-8. (Eleventh Crop.)

Name of Tree.	Number in Seed-beds.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Larix Europæa	50,000	1,243,000	9-18	1 5 0	2,548 10 0	Unusually fine trees. Grub destroyed many.
Pinus Laricio	643,000	26,000	4	1 5 0	862 5 0	Satisfactory.
" ponderosa	7,000	44,000	4	2 5 0	107 15 0	"
" Benthamiana	41,000	..	6	1 5 0	51 5 0	"
Pseudo-tsuga taxifolia	..	16,500	8	2 10 0	41 5 0	"
Picea sitchensis	..	1,500	7	2 10 0	3 15 0	"
Fraxinus excelsior	7,000	..	14	1 5 0	8 15 0	Strong growth.
Acer pseudo-platanus	..	40,000	18	1 10 0	60 0 0	"
Betula alba	..	12,000	15	2 5 0	27 0 0	Very fine.
Alnus glutinosa	..	29,500	16	2 0 0	59 0 0	"
Quercus pedunculata	..	37,500	10	2 5 0	84 7 6	"
Fagus sylvatica	..	3,500	11	2 10 0	8 15 0	"
Sequoia sempervirens	..	600	7	6 0 0	3 12 0	Good progress.
Thuja gigantea	..	200	5	3 0 0	0 12 0	Uneven growth.
Various trees and shrubs	..	2,000	12	2 10 0	5 0 0	
Totals	748,000	1,456,300	..	..	3,871 16 6	
	2,204,300					



Eleocarpus dentatus (HINAU)—7 YEARS OLD, 32 IN. HIGH.



Pseudo-tsuga taxifolia (OREGON PINE)—7 YEARS OLD, 11 FT. HIGH.



Podocarpus ferrugineus (Miro)—7 YEARS OLD, 13 IN. HIGH.



Picea excelsa (Norway Spruce)—7 YEARS OLD, 18 FT. HIGH.

SCHEDULE 3.—Three-year-old Trees, grown 1906-7. (Tenth Crop.)

Name of Tree.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Larix Europæa	4,000	18	3 0 0	12 0 0	Well-grown trees.
Pinus Austriaca	44,750	6	3 0 0	134 5 0	"
" Laricio	245,500	6	3 0 0	736 10 0	"
" ponderosa	3,750	7	3 0 0	11 5 0	"
" Benthamiana	5,250	7	3 5 0	17 1 3	"
" muricata	350	8	3 0 0	1 1 0	"
Picea excelsa	231,500	5-18	3 0 0	694 10 0	Strong and healthy.
" sitchensis	71,750	12	3 5 0	233 3 9	Strong trees.
Pseudo-tsuga taxifolia	3,700	10	3 5 0	12 0 6	"
Fraxinus excelsior	1,800	10	3 0 0	5 8 0	Sturdy trees.
" Americana	1,100	12	3 0 0	3 6 0	"
Quercus pedunculata	14,700	16	3 0 0	44 2 0	"
Acer saccharum	800	6	3 0 0	2 8 0	Not suitable here.
Totals	628,950	..	..	1,907 0 6	

SCHEDULE 4.—Trees transferred from Tapanui Nursery to Plantations, &c., 1908-9.

Where sent.	Name of Tree.	Number.	Height in Inches	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Conical Hills Plan- tation	Pinus Austriaca	10,000	12	3 0 0	30 0 0	These trees, with the exception of Picea excelsa, have done well.
	" ponderosa	29,475	12	3 0 0	88 8 6	
	" muricata	1,275	15	2 5 0	2 17 4	
	Picea excelsa	14,050	12	3 0 0	42 3 0	
	Pseudo-tsuga taxifolia	5,325	15	3 5 0	17 6 1	
	Fraxinus excelsior	5,725	15	3 0 0	17 3 6	
	" Americana	450	14	3 0 0	1 7 0	
	Quercus pedunculata	36,075	15	3 0 0	108 4 6	
	Acer pseudo-platanus	28,800	15	2 15 0	79 4 0	
	Betula alba	31,425	15	2 0 0	62 17 0	
	Alnus glutinosa	4,775	15	3 0 0	14 6 6	
	Populus (vars.)	2,700	15	1 10 0	4 1 0	
	Totals	170,075			467 18 5	
Dusky Hill Planta- tion	Pinus Austriaca	43,100	12	3 0 0	129 6 0	Satisfactory results were obtained with all species planted, excepting Pinus Torreyana.
	" Laricio	86,775	12	3 0 0	260 6 6	
	" ponderosa	31,125	13	3 0 0	93 7 6	
	" Benthamiana	17,825	14	3 5 0	57 18 7	
	" Torreyana	300	15	2 10 0	0 15 0	
	Picea excelsa	98,550	14	3 0 0	295 13 0	
	" sitchensis	75,450	15	3 5 0	245 4 3	
	Pseudo-tsuga taxifolia	10,400	14	3 5 0	33 16 0	
	Larix Europæa	136,200	15	3 0 0	408 12 0	
	Quercus pedunculata	1,000	14	3 0 0	3 0 0	
	Betula alba	18,500	16	2 5 0	41 12 6	
	Alnus glutinosa	3,000	15	2 0 0	6 0 0	
	Totals	522,225			1,575 11 4	
Conical Hills Planta- tion	As per details above	170,075	467 18 5	
Dusky Hill Planta- tion	"	522,225	1,575 11 4	
Tourist Department, Queenstown	Forest-trees	450	0 19 0	
Burnham Industrial Schools	Trees and shrubs	2,585	8 14 3	
Lauder Domain Board	Forest-trees	1,600	4 8 6	
Education Board, Greymouth	"	950	2 17 0	
Tuapeka Domain Board	"	250	1 0 0	
Clyde Domain Board	"	200	0 15 0	
Te Oranga Home	"	500	1 10 0	
H.M. Prison, Inver- cargill	Shelter-trees	1,200	2 14 0	
Totals	700,035	2,066 7 6	

SCHEDULE 5.—Trees, &c., received from other Nurseries, 1908-9.

Received from	Sent to	Names of Tree, &c.	Number.	Value per Thousand.	Total Value.
				£ s. d.	£ s. d.
Starborough Nursery ..	Dusky Hill Plantation ..	<i>Pinus Laricio</i> ..	175,000	3 0 0	525 0 0
		<i>Larix Europæa</i> ..	50,000	2 5 0	112 10 0
		<i>Pinus Laricio</i> ..	200,000	3 0 0	600 0 0
		" <i>Austriaca</i> ..	73,000	3 0 0	219 0 0
		" <i>ponderosa</i> ..	3,150	3 0 0	9 9 0
" ..	Conical Hills Plantation ..	" <i>Benthamiana</i> ..	1,470	3 5 0	4 15 6
		<i>Larix Europæa</i> ..	72,650	2 5 0	163 9 3
		<i>Pseudo-tsuga taxifolia</i> ..	550	3 5 0	1 15 9
		<i>Picea sitchensis</i> ..	100	3 5 0	0 6 6
		<i>Pyrus aucuparia</i> ..	200	3 0 0	0 12 0
Eweburn Nursery ..	Tapanui Nursery ..	<i>Larix Europæa</i> ..	32,000	1 0 0	32 0 0
		<i>Pinus Laricio</i> ..	17,000	1 0 0	17 0 0
		" <i>Austriaca</i> ..	6,000	1 0 0	6 0 0
		" <i>ponderosa</i> ..	5,000	1 0 0	5 0 0
		<i>Sequoia sempervirens</i> ..	1,200	4 0 0	4 16 0
Kurow Nursery ..	" ..	<i>Cupressus majestigma</i> ..	150	1 10 0	0 4 6
		" <i>Goveniana</i> ..	150	1 10 0	0 4 6
		<i>Thuja Orientalis</i> ..	200	1 10 0	0 6 0
		<i>Pseudo-tsuga taxifolia</i> ..	500	1 5 0	0 12 6
		Tools, &c. ..	..	..	15 11 8
Totals ..	..	..	638,320	..	1,718 13 2

R. G. ROBINSON,
Nurseryman in Charge.

ROTORUA NURSERY.

(Approximate area, 85 acres; approximate altitude, 1,000 ft.)

The rainfall during the year was 52·10 in., which fell on 165 days, the maximum fall being registered in March, and totalled 8·42 in. The highest reading of the thermometer was 87°, on the 8th March, and the lowest 23°, on the 28th July and 2nd August.

During last winter 6,659,000 trees were dealt with. Lifting lined-out trees and counting and bundling these for sending to the plantations cost 1s. 8d. per thousand; sizing seedlings cost 2s. per thousand; lining out trees in nursery rows cost 1s. 8d. per thousand; mossing trees (including gathering moss and flax and heeling in the mossed trees) cost 11s. 5d. per thousand. Trees sent out from the nursery during the year to plantations, public schools, &c., number 4,491,510, and their value was £9,451 1s. 3d. (details of these may be seen on schedule 4 appended hereto); and since the inception of the nursery, 22,292,809 trees, valued at £46,460 5s. 9d., have been sent out. From seed, 4,395,500 trees, valued at £4,269, were raised during the year; and the number of trees raised since the inception of the nursery is 30,662,309, valued at £57,873 0s. 9d.

Seed-sowing was commenced early in October, and completed towards the middle of November. This work was favoured with fairly good weather, and the results are satisfactory, except with redwood.

Schedule 1 appended hereto gives the numbers and values of the trees raised from seed during the year. A comparison of this schedule with the previous year's one will show that the larch-crop from 672 lb. of seed is this year half a million less than the previous year from the same quantity of seed. This difference is undoubtedly due to the germinating quality of the seed. The growth made by the trees is good, and, as usual, about 25 per cent. will need to be removed for lining-out in the nursery.

Pinus Laricio is a remarkably good crop, being in respect to germination about 100 per cent. better than last year's crop. The growth made by the young plants is better than usual.

Pinus ponderosa and *Pinus Benthamiana* both germinated well and evenly, but the latter is evidently not true. The variety *Benthamiana* heretofore has always been quite distinct from the species, as a rule, making more growth, and being much lighter in colour. The seed of *Benthamiana*, too, is usually much larger than the seed of *ponderosa*, although both vary considerably, and sometimes are identical in size and general appearance. When seed-sowing was in progress it was noticed that the seeds of the two species in question were to all appearances identical, but this could not be proved until the young plants were compared.

Pseudo-tsuga taxifolia (Oregon pine) is a fairly good crop, and will probably need to be transplanted next spring.

Pinus Murrayana and *Pinus radiata* are both thick crops, and will be planted permanently next winter.

Sequoia sempervirens (Californian redwood) is almost a complete failure, 2,000 plants being the result from 20 lb. of seed. During the past eight years only one decent crop of this species has been obtained, the failures each time being due to the poor quality of the seed. When it is considered that the seed costs close on £1 per pound, it is questionable whether it is worth while attempting to grow this tree at all.

Thuja gigantea, *Acacia decurrens*, and *Alnus glutinosa* are each thick crops.

Eucalyptus Stuartiana is an excellent crop. The seed was sown a fortnight earlier than usual, in order that a trial might be made of planting these trees without previously mossing them. If it is possible to get them permanently planted by the middle of May next it is thought that they will then be sufficiently established to withstand the frost and cold weather usually experienced in July and August.

Two-year-old Seedlings (details in Schedule 2).—All these trees have made wonderfully good growth, and about 90 per cent. of them are fit for transferring to plantations for permanent planting.

Two- and Three-year-old Lined-out Trees (Schedule 2) are, on the whole, a first-rate crop. Among the larch the death-rate is practically nil, and the growth made is remarkably even. The pines, too, made good growth, and with very few losses except amongst the *Pinus Laricio*, where the death-rate is about 10 per cent. The work of lining out the above-mentioned trees was in progress from the 14th July to the end of August, and, except for occasional frosts, the work was completed under favourable weather-conditions.

The health of all classes of trees is remarkably good. The two-year-old seedling *Pinus Laricio* are slightly infested by a pine *aphis*, but have not been injured thereby to any appreciable extent. A few small patches of two-year-old larch seedlings are injured by the grass grub, but this pest is far from being prevalent. It would appear that the grass grub thrives only on land that has become somewhat dry and consolidated, such as the two-year-old seed-beds, as it is not noticeable amongst the lined-out trees or this year's seedlings. If this assumption is correct, then the trouble may have been mitigated by the frequent cultivating to which the beds were subjected.

Considerable improvements of a permanent character were effected during the year. A large building, comprising five compartments for vehicles, two loose boxes, and two rooms (each 12 ft. by 12 ft.), for use as a saddler's shop and an engine-room respectively, was erected. This building was much needed, and has been duly appreciated. A Tangye 4-horse-power oil-engine was installed for driving the oat-crusher, and the power has also been adapted to the saddler's sewing-machine and the grindstone. An addition of two rooms was made to the Nurseryman's cottage, and some small improvements made to the men's quarters.

The drainage was placed in an up-to-date state by the erection of a septic tank, accompanied by the usual sanitary conveniences.

Water-service.—This is now in very effective order. A 2 in. supply-pipe was laid from the town main, and connected with the nursery reticulation, the old reservoir on the hill behind the nursery being now used for storage of water in cases of emergency. Standpipes, with fire-hoses attached, have been placed near the buildings.

Seed-frames.—Two hundred seed-frames were erected with material that had been received from the Starborough Nursery, and all the seed-frames in use were painted on the iron parts, in order to prevent corrosion.

A further area of 9 acres was ploughed and sown down in grasses and clovers for use as a horse-paddock. The results are very satisfactory. Two young mares were purchased during the year.

A small packet of seed of *Asclepias semi-lunata*, a reputedly good fibre plant, was sown, but the results are unsatisfactory. This plant is a native of Uganda, and requires a hot humid climate for its successful cultivation. The seeds germinated well, and the young plants were transplanted into rows, where since November they have made, on an average, 6 in. of growth. A rich peaty soil, plenty of heat, and moisture are probably necessary for its best development.

Good progress has been made by 2,000 young flax plants which were planted last spring. All the odd corners around the nursery are now planted up in this manner, and some of the first lot planted are now fit to cut from. The quantity of the flax used in the nursery for tying up trees during the planting season is very considerable, so that these flax plantations should, in a few years, be a valuable asset.

Revenue received during the year amounted to £15 14s. 1d.—refunds, £15 11s. 7d.; and sale of trees, 2s. 6d.

The coming winter's work will consist in transferring about 4,500,000 trees to the Whakarewarewa and Waiotapu Plantations.

Details of expenditure and values are appended.

The following is a record of rainfall and temperature for the year :—

Month.	Rainfall.	Number of Days Rain fell.	Highest Reading of Thermometer.	Date.	Lowest Reading of Thermometer.	Date.
1908.	Inches.		Degrees.		Degrees.	
April	3.11	14	75	16th	29	4th and 9th
May	6.61	14	68	3rd	25	22nd
June	4.40	16	63	14th	24	21st
July	3.35	15	58	21st	23	28th
August	3.81	11	62	31st	23	2nd
September	4.23	13	68	8th	27	12th
October	5.42	19	74	10th	28	31st
November	2.95	15	79	9th	37	7th
December	6.19	17	85	20th	34	9th
1909.						
January	3.47	12	84	24th	32	17th
February	0.14	3	84	17th	42	27th
March	8.42	16	87	8th	34	31st
Totals	52.10	165	...	...	...	...

Statement of Expenditure.

	£	s.	d.
Amount at 31st March, 1908	25,526	19	0
Tree-growing	2,270	6	5
General maintenance and repairs	518	8	9
Nursery-formation	40	4	7
Horse-feed	220	2	8
Manures	89	15	6
Tree-seeds	209	5	5
Tools, implements, &c.	220	4	10
Seed-frames	297	5	5
Water-supply	293	6	5
Buildings	493	2	0
Fencing	8	12	1
Miscellaneous works	6	7	11
Proportion of Nurseryman's salary, Foreman's wages, and clerical assistance	399	17	2
Supervision	24	6	8
	£30,618	4	10

Value of Stock, &c.

	£	s.	d.	£	s.	d.	£	s.	d.
Amount at 31st March, 1908	10,857	9	0	18,367	2	5			
Less value of trees	42	0	0						
" horse-feed in stock				10,899	9	0			
							7,467	13	5
Trees, as per Schedule 1							4,269	0	0
" " 2							6,288	15	0
" " 3							855	0	0
Tools and implements							220	4	10
Water-supply							293	6	5
Seed-frames							297	5	5
Nursery-formation							40	4	7
Fencing							8	12	1
Buildings							493	2	0
Improved value							424	3	10
Horse-feed in stock							235	0	0
Value of young horses bred or increased value during year							10	0	0
							£20,902	7	7

Summary.

	£	s.	d.
Value of present stock and general improvements	20,902	7	7
Value of trees sent out since initiation of nursery	46,460	5	9
	67,362	13	4
Expenditure to date	30,618	4	10
Credit balance	£36,744	8	6

Stock in Hand.

SCHEDULE 1.—Details of One-year-old Trees, grown at Rotorua Nursery, 1908-9. (Tenth Crop.)

Name of Tree.	Number in Seed-beds.	Height in Inches.	Amount of Seed sown.	Value per Thousand.	Total Value.	Remarks.
			Lb.	£ s. d.	£ s. d.	
Larix Europæa	2,500,000	1-6	672	1 0 0	2,500 0 0	Thin crop, good growth.
Pinus Laricio	1,000,000	2	224	1 0 0	1,000 0 0	Very good.
" ponderosa	360,000	2	68	1 0 0	360 0 0	Satisfactory.
" " var. Benthamiana	100,000	2	20	1 5 0	125 0 0	
Pseudo-tsuga taxifolia	30,000	3	10	1 5 0	37 10 0	Good.
Pinus Murrayana	2,500	3	1	1 0 0	2 10 0	Thick crop, good growth.
" radiata	6,000	4	2	1 0 0	6 0 0	
Sequoia sempervirens	2,000	4	20	4 0 0	8 0 0	Almost a failure, poor seed.
Thuja gigantea	25,000	1	$\frac{3}{4}$	1 10 0	37 10 0	Thick crops, good growth.
Eucalyptus Stuartiana	350,000	4	15	0 10 0	175 0 0	
Acacia decurrens	10,000	4	2	1 0 0	10 0 0	
Alnus glutinosa	10,000	3	5	0 15 0	7 10 0	
Totals	4,895,500	..	..	..	4,269 0 0	



Picea Sitchensis (TideLand Spruce)—7 YEARS OLD, 14 FT. HIGH.



Podocarpus dacrydioides (KAHIKATEA, WHITE-PINE)—7 YEARS OLD, 18 IN. HIGH.



Fagus Solandri (NATIVE BEECH)—7 YEARS OLD, 9 FT. HIGH.



Pinus strobus (WEYMOUTH PINE)—7 YEARS OLD, 12 FT. HIGH.

SCHEDULE 2.—Two-year-old Trees, grown at Rotorua Nursery, 1907-8. (Ninth Crop.)

Name of Tree.	Number in Seed-beds.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
Larix Europæa	1,600,000	1,400,000	18	£ s. d. 1 5 0	£ s. d. 2,000 0 0	Remarkably good growth amongst all species.
Sequoia sempervirens .. ..	..	20,000	15	2 5 0	3,150 0 0
Pseudo-tsuga taxifolia .. ..	..	45,000	6	6 0 0	120 0 0
Pinus ponderosa .. ..	..	45,000	5	2 10 0	112 10 0
Pinus ponderosa var. Benthiana .. ..	..	65,000	5	2 5 0	101 5 0
Pinus ponderosa var. Benthiana .. ..	..	65,000	4	2 10 0	162 10 0
Pinus Laricio	500,000	..	4	1 5 0	625 0 0	
Pinus strobilus	14,000	..	3	1 5 0	17 10 0	
Totals	2,114,000	1,575,000	6,288 15 0	

SCHEDULE 3.—Three-year-old Trees, grown at Rotorua Nursery, 1906-7. (Eighth Crop.)

Name of Tree.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
Larix Europæa	250,000	15	£ s. d. 3 0 0	£ s. d. 750 0 0	Very good growth.
Pinus strobilus	16,000	4	3 0 0	48 0 0	
Pinus Laricio	10,000	4	3 0 0	30 0 0	
Pinus Austriaca	9,000	5	3 0 0	27 0 0	
Totals	285,000	..	..	855 0 0	

SCHEDULE 4.—Trees, &c., transferred from Rotorua Nursery to Forest Plantations, &c., 1908-9.

Where sent.	Name of Tree.	Number.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
Whakarewarewa Plantation	Pinus Austriaca	6,300	4	£ s. d. 3 0 0	£ s. d. 18 18 0	The results are satisfactory except Sequoia sempervirens, which did not transplant well.
	Larix Europæa	8,175	6	1 0 0	8 3 6	
	"	13,400	12	1 5 0	16 15 0	
	"	858,350	12	2 5 0	1,931 5 9	
	"	6,475	12	3 0 0	19 8 6	
	Sequoia sempervirens	24,000	5	4 0 0	96 0 0	
	Pinus Laricio	248,450	4	2 5 0	559 0 3	
	Pinus ponderosa	113,000	4	2 5 0	254 5 0	
	"	176,875	4	3 0 0	529 2 6	
	" var. Benthiana	19,600	4	2 10 0	49 0 0	
	" Austriaca	109,075	4	1 5 0	136 6 10	
	" Murrayana	10,225	6	3 0 0	30 13 6	
	Populus	600	36	3 0 0	1 16 0	
	Eucalyptus Stuartiana	351,900	6	1 10 0	527 17 0	
	" Amygdalina	50,750	6	1 10 0	76 2 6	
	" pauciflora	52,800	6	1 10 0	79 4 0	
Waiotapu Plantation	Acacia melanoxylon	5,050	6	1 0 0	5 1 0	All have succeeded except Sequoia sempervirens, amongst which the death-rate is somewhat heavy.
	Eucalyptus amygdalina	22,000	6	0 10 0	11 0 0	
	Acacia melanoxylon	1,725	6	1 5 0	2 3 1	
	Totals	2,078,250			4,352 2 5	
	Pinus Laricio	302,000	4	3 0 0	906 0 0	
	"	392,000	4	2 5 0	882 0 0	
	" ponderosa	10,525	4	2 5 0	23 13 7	
	"	70,000	4	3 0 0	210 0 0	
	" var. Benthiana	41,750	4	2 10 0	104 7 6	
	"	21,250	4	3 5 0	69 1 3	
	" Austriaca	10,000	4	3 0 0	30 0 0	
	" strobilus	19,750	4	1 5 0	24 13 9	
	Larix Europæa	300,000	6	1 0 0	300 0 0	
	"	586,950	12	1 5 0	733 13 9	
	"	355,050	12	2 5 0	798 17 3	
	"	204,800	12	3 0 0	614 8 0	
	Sequoia sempervirens	88,000	5	4 0 0	352 0 0	
	"	2,200	7	6 0 0	13 4 0	
	Betula alba	3,000	12	2 5 0	6 15 0	
	"	2,950	12	3 0 0	8 17 0	
	Ornamentals	348	..	6d. each	8 14 0	
Totals	2,410,573			5,086 5 1	

SCHEDULE 4.—Trees, &c., transferred from Rotorua Nursery to Forest Plantations—*continued*.

Where sent.	Description.	Number.	Value.
			£ s. d.
Whakarewarewa Plantation	Details above	2,078,250	4,352 2 5
Waitapu Plantation .. ..	.. ..	2,410,573	5,086 5 1
Native School, Oruanui	Shelter-trees	250	0 13 6
James Dunning, Waitomo	Larch	200	0 2 6
Hunua Scenic Reserve	<i>Pinus ponderosa</i>	2,000	4 10 0
Public School, Putaruru	Shelter and ornamental	100	1 9 6
Tourist Department, Rotorua	<i>Liriodendron tulipiferum</i>	100	5 0 0
Native School, Rotoiti	Shelter and ornamental	37	0 18 3
		4,491,510	9,451 1 3

H. A. GOUDIE,
Nurseryman in Charge.

RUATANGATA NURSERY.

(Area, 65 acres; altitude, 320 ft.)

Rain fell on 181 days during the year, with a total fall of 59·33 in., the maximum fall being in July, when 6·81 in. fell, on 26 days. Maximum temperature, 82°; minimum temperature, 28°. There were 13 frosts recorded, the maximum being 4°, on 1st and 8th August. It will be noticed that the rainfall for the year is much lower than that of the previous year, which was 95·66 in.; but, although there has been 36·33 in. less rain fallen, there has been no scarcity of water, as the rainfall was more evenly distributed throughout the year, as will be seen per record of rainfall attached.

The average temperature was also lower, being 54·16, against 55·33 last year; the prevailing winds being north and south-west.

In consequence of the cooler weather, the lined-out trees have not made the usual strong growth; but, at the same time, they are a good hardy looking lot, and quite large enough for transplanting.

There were 156,250 trees lined out, at an average cost of 3s. 5½d. per thousand. The lining-out season this year was a fairly good one, the work taking exactly two months, commencing on the 24th June. *Podocarpus totara* and juniper have done very well, and Californian redwood have made excellent growth, but tideland spruce have only made medium growth.

During the first week in September 80 lb. of *Podocarpus totara* seed, gathered locally, was sown; this germinated splendidly, and produced a fine crop of about 300,000 seedlings. 8 lb. of seed of *Sequoia sempervirens* was sown in November, with no results, the seed evidently being infertile.

The eucalypti-seed was sown at two different periods, to insure a good supply of trees at the proper time for the mossaing, as this work extends over about five months. The first lot of seed was sown during November and the remainder late in December. 2 lb. each of the following species were sown: *Eucalyptus resinifera*, *E. rostrata*, *E. Stuartiana*, and 3 lb. of *E. amygdalina*: the whole of these have done well with the exception of the latter, which germinated rather thinly.

Owing to the scarcity of sphagnum moss, and the expense of procuring this, it has been decided to discontinue the mossaing of the eucalypti in large numbers. A small planting of the different species unmossaed was experimented with last season, and was a decided success, and it is intended to try a much larger quantity this season. It has also been decided to discontinue growing *Podocarpus totara*. Although these trees do well in the nursery, they are a complete failure when planted out permanently.

During the winter months 276,400 eucalypti and 5,600 *Acacia melanoxylon* were mossaed by day-labour, costing 14s. 9d. per thousand; this includes all labour and expenses connected with the work. The total number of trees of all ages in the nursery at 31st March, 1909, was 832,500, valued at £1,601 7s. 6d.

The number of trees sent out to Puhipuhi Plantation during the season was 536,450, valued at £1,456 12s. 6d.

The approximate number of trees available for the plantation this season is 420,000; the total number of trees raised at the nursery since May, 1903, is 2,317,868, valued at £5,013 13s. 9d.

The total number of trees transferred to Puhipuhi Plantation since the inception of this nursery is 1,488,245, valued at £4,019 10s. 10d.

As reported last year, the various species of trees planted in the experimental plantation adjoining the nursery are doing well, with the exception of the break of *Eucalyptus pilularis*, consisting of about 250 trees, from 10 ft. to 20 ft. in height. These were attacked by the canker-worm, which was completely defoliating them; and it was decided to fell and burn these, in order to protect the remainder of the plantation from the pest, and, so far, this has proved effectual.

Quercus suber seedlings, reported to be doing well last season, have not made the growth that was anticipated, the majority of them still being about the same height. A few trees planted five years ago are doing well, being thoroughly established.

About 4 acres of very heavy fern land at the back of the nursery was burnt off, and, as time permitted, this was ploughed and cultivated, and is now fairly clean; it is proposed to sow this down in Algerian oats, in order to try and choke the fern.

Two swamps—one in the horse-paddock and another in the centre of the nursery—were drained by forming about 31 chains of stone and tile drains. The seed-bed ground was extended, also the water-service, and land graded for lining-out purposes.

A single line of Chatham Island kowhai, cabbage-trees, and flax were planted alternately on a narrow strip of land between the creek and the main road, running from the stable buildings to the entrance-gates. These are all doing well, and have improved the appearance of the place considerably. A few odd corners in the nursery were also planted up with shrubs and flax.

A small sowing of *Asclepias semi-lunata* (Native Baganda name, ka fumba) was made, and so far this has done well, being now in full bloom, and averaging 4 ft. 6 in. in height. The fibre is of fine quality, and appears to be very strong; but nothing can be said as regards growing this for commercial purposes at the present time, as the results of milling, &c., have to be considered. If this can be milled at a reasonable cost, being an annual, it should prove a payable crop to grow.

Oaten sheaves were grown to the value of £150.

The average number of persons employed was—Men, 6; women, 2·18; boys, 1·60: total, 9·78.

The following is a record of the rainfall and temperature for the year:—

Month.	Rainfall.	Number of Days with Rain.	Maximum Temperature.	Date.	Minimum Temperature.	Date.
1908.	Inches.		Degrees.		Degrees.	
April	5·35	14	72	2nd	40	8th and 25th
May	4·91	14	68	17th	30	31st
June	6·45	19	63	9th	30	1st and 20th
July	6·81	26	59	4th	28	31st
August	4·84	13	60	20th	28	8th
September	4·36	18	64	7th	34	2nd
October	4·63	18	68	10th and 22nd	38	31st
November	4·26	11	73	10th and 25th	40	14th and 16th
December	6·67	10	76	21st	43	9th and 14th
1909.						
January	3·68	13	82	7th	43	16th
February	0·89	10	77	16th	46	24th
March	6·48	15	75	1st	42	28th
Totals	59·33	181	...	...	...	...

Statement of Expenditure.

	£	s.	d.
Amount at 31st March, 1908	6,013	6	7
Tree-growing	762	3	10
General maintenance and repairs	98	9	3
Nursery-formation	128	7	1
Horse-feed purchased and grown	150	15	1
Manures	4	18	9
Tree-seeds	27	11	4
Tools, implements, &c.	24	14	9
Seed-frames	6	13	3
Water-supply	0	8	6
Buildings	29	7	6
Fencing	7	10	0
Miscellaneous works	3	11	4
Proportion of Nurseryman's salary	150	0	0
Supervision	36	10	0
	£7,444	7	3

Value of Stock, Improvements, &c.

	£	s.	d.	£	s.	d.	£	s.	d.
Amount at 31st March, 1908	...	...	...	4,949	10	7			
Less value of trees	1,715	4	3						
" horse-feed	72	0	0						
" one colt died	5	0	0						
				1,792	4	3			
							3,157	6	4
Trees, as per Schedule 1	...	...	...				940	0	0
" 2	...	...	...				661	7	6
Tools and implements	...	...	...				24	14	9
Water-supply	...	...	...				0	8	6
Seed-frames	...	...	...				6	13	3
Nursery-formation	...	...	...				128	7	1
Fencing	...	...	...				7	10	0
Buildings	...	...	...				29	7	6
Improved value	...	...	...				186	10	0
Horse-feed in stock	...	...	...				150	0	0
							£5,292	4	11

Summary.					£	s.	d.
Value of present stock and general improvements	...	...	...	...	5,292	4	11
Value of trees sent out since initiation of nursery	...	...	...	...	4,019	10	10
					9,311	15	9
Expenditure to date	...	...	...	...	7,444	7	3
Credit balance	...	...	...	...	£1,867	8	6

Stock in Hand.

SCHEDULE 1.—One-year-old Trees, grown at Ruatangata Nursery, 1908-9. (Sixth Crop.)

Name.	Number in Seed-beds.	Height in Inches.	Seed sown.	Value per Thousand.	Total Value.	Remarks.
			Lb.	£ s. d.	£ s. d.	
Podocarpus totara ..	300,000	3	80	2 10 0	750 0 0	Splendid plants.
Eucalyptus Stuartiana ..	100,000	3	2	0 10 0	50 0 0	"
" rostrata ..	160,000	3	2	0 10 0	80 0 0	"
" resinifera ..	90,000	3	2	0 10 0	45 0 0	"
" amygdalina ..	30,000	3	3	0 10 0	15 0 0	"
Totals ..	680,000	..	..	..	940 0 0	

SCHEDULE 2.—Two-year-old Trees, grown 1908-9.

Name.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Podocarpus totara	136,000	12	4 5 0	578 0 0	Good healthy trees.
Juniperus Virginiana	2,000	12	3 0 0	6 0 0	"
Sequoia sempervirens	11,000	14	6 0 0	66 0 0	"
	149,000			650 0 0	
Picea sitchensis 4-year-old trees)	3,500	10	3 5 0	11 7 6	Good and sturdy.
Total .. ..	..	..	..	661 7 6	

SCHEDULE 3.—Trees transferred from Nursery to Puhipuhi Plantation, 1908-9.

Name.	Number.	Value per Thousand.	Total Value.	Remarks.
		£ s. d.	£ s. d.	
Podocarpus totara.. ..	215,000	4 5 0	913 15 0	Doing fairly well.
" dactydiodes	1,950	1 10 0	2 18 6	"
Picea sitchensis	11,800	2 10 0	29 10 0	Doing very well.
Juniperus Virginiana	600	3 0 0	1 16 0	"
Acacia melanoxylon	5,600	2 0 0	11 4 0	"
Sequoia sempervirens	18,000	4 0 0	72 0 0	Growing slowly.
Pseudo-tsuga taxifolia	180	2 10 0	0 9 0	Growing slowly. 50 per cent. dead.
Eucalyptus rostrata	116,000	1 10 0	174 0 0	Doing well.
" Stuartiana	75,000	1 10 0	112 10 0	Doing exceedingly well.
" resinifera	40,000	1 10 0	60 0 0	"
" amygdalina	28,000	1 10 0	42 0 0	Very slow growth.
" redunca	24,320	1 10 0	36 10 0	Nearly all dead.
	536,450	..	1,456 12 6	
4 tons oaten chaff, at £6 per ton ..	..	..	24 0 0	Sent to Rotorua Nursery.
			1,480 12 6	

A. GORDON,
Nurseryman in Charge.

DUSKY HILL PLANTATION, OTAGO.

(Area, 845 acres; altitude, 400 ft. to 800 ft.)

Special attention was directed towards the replanting of burnt-out area, and, although this object was almost accomplished, an unusual number of trees failed to succeed, and it is estimated that about 100,000 pines and larch will be required for replanting purposes during the ensuing year.

There were 522,225 trees, as per Schedule 4, received from the Tapanui Nursery, and 175,000 from the Starborough Nursery. The pines from the latter station were apparently well grown, but had evidently suffered in consequence of prolonged confinement in bundles and cases, and a heavy death-rate was not unexpected. The dry spring immediately following their transference



Podocarpus totara ("TOTARA")—7 YEARS OLD, 6 FT. HIGH.



Pinus Laricio (CORSIKAN PINE)—7 YEARS OLD, 12 FT. HIGH.

C.—1B.



Knightia excelsa (REWAREWA, HONEYSUCKLE)—7 YEARS OLD, 21 IN. HIGH.



Pinus ponderosa (AMERICAN YELLOW-PINE)—7 YEARS OLD, 11 FT. HIGH.

to permanent positions also assisted in minimising the success in dealing with these trees from Marlborough.

There were 449,725 trees planted in grubber pits, at 11s. 4½d. per thousand; and 247,000 by the bar method, at 9s. 3d. per thousand.

The amount of ground planted for the year was 300½ acres, and the total area under trees at present is 806 acres, containing 1,973,392 trees. It may be mentioned that throughout the burnt-out block a fair proportion of trees have revived, and these were pruned and allowed to remain.

There were 133,848 grubber pits prepared by day-labour, at 12s. 10d. per thousand; and 76,077 scuffled spots, for bar-planting, at 9s. 6d. per thousand.

The formation of 34 chains of ditching was necessary to carry off surplus water from an area where excessive moisture was proving detrimental to young trees, and 16 chains of new track was also made, to enable employees to reach various parts of the plantation with greater facility.

Fire-breaks were again ploughed and disc-harrowed, this work being considerably lighter than in the previous year, when about 35 acres was broken up for the first time. During mid-summer a grass-fire from an adjoining property approached the plantation enclosure, but the employees had no difficulty in suppressing the flames at the boundary fire-break before any damage was done.

The season has been an excellent one for tree-growth generally, and in no previous year has such marked progress been made by the different species established at this station. The absence of the customary early spring growth of larch was very noticeable; but subsequently, when copious rains had fallen, a steady growth was made, and numbers have increased in height by over 3 ft.

Heavy winds experienced during September proved destructive to the leaders of *Picea sitchensis* and *P. excelsa*. The damage is, of course, not irreparable, but it means, at least, the loss of a year's growth to the trees affected, and also additional work in pruning. The pines continue to put on sturdy growth, and the shelter created by these trees is proving beneficial to the slow-growing hard woods—oak, ash, and sycamore. The *Juglans regia* (walnuts) and *Castanea sativa* (sp. chestnuts) that are occupying sheltered positions in one of the old broadleaf gullies are rapidly developing into fine trees, and now average about 7 ft. high.

The Pomahaka River, which forms the south and western boundaries to the plantation, was much affected by the scanty rainfall during the summer, and quite failed to check the ingress of stock from property on the opposite side. No damage resulted, however, although at times difficulty was experienced in ejecting the cattle from the reserve. As may be expected, a few rabbits also succeeded in gaining access during the dry season, but by systematic trapping and poisoning no traces of the pest are now seen.

The presence of deer on local plantations made it necessary to obtain a permit for destroying same, and one of the employees managed to shoot a stag after a number of nut trees had been barked by the intruder. An expenditure of £507 13s. was incurred in the general upkeep of plantation. This item included the removal of undergrowth from around trees, tree-pruning, cutting scrub, and mowing noxious weeds. For the next season preparations are being made to complete all replanting of failures, and this work may be carried out satisfactorily by the ordinary maintenance staff of five men.

A statement of expenditure is appended.

Statement of Expenditure.

	£	s.	d.
Amount at 31st March, 1908	10,314	9	5
Pitting	122	6	2
Tree-planting	369	15	4
Formation	4	14	6
Clearing	1	19	7
Cartage of trees and railage	73	0	5
General upkeep of plantation	507	13	0
General repairs	10	1	6
Tools, implements, &c.	4	19	8
Miscellaneous works	14	8	11
Salaries—			
Free labour	30	0	0
Nurseryman's proportion of	22	0	0
Supervision	24	6	8
	<u>£11,499</u>	<u>15</u>	<u>2</u>

F. BENFELL, Plantation Foreman.
R. G. ROBINSON, Forester in Charge.

CONICAL HILLS PLANTATION, OTAGO.

(Area, 3,672 acres; altitude, 400 ft. to 1,050 ft.)

Tree-planting operations at this station were carried out under fairly satisfactory conditions, although a dry spell of weather, with an occasional strong south-west wind, naturally helped to increase the death-rate in trees planted.

There were 350,920 trees, as per Schedule 4, received from Starborough Nursery, and 170,075 from Tapanui Nursery. Although the trees from Marlborough appeared to be well packed, some of the consignments were subjected to an extended delay during transit, and a considerable number of *Pinus Laricio* became heated in consequence.

There were 390,500 trees planted in grubber pits, at 15s. 9½d. per thousand; and 73,041 by the bar method, at 12s. 6½d. per thousand.

The new area planted during the year amounted to 170½ acres, and the total area under trees at present is 1,252½ acres, containing 3,777,120 trees. 57,454 trees were also used in replanting previous failures. 340,625 grubber pits were prepared by contract, at £1 per thousand; and 260,991 scuffled spots for bar-planting, by day-labour, at 10s. 1¾d. per thousand.

On the whole, the results attained by the bar-planting system are sufficiently encouraging to merit the continuance of the method; winter planting with the bar, however, cannot be recommended for this district, as, no matter how careful a planter may be in closing the crevice made, a heavy frost will invariably loosen the young tree, which, if not attended to, is quickly rendered useless. It may be mentioned that an improvement has been effected in the bars used for the work by widening the blade, and this will dispense with the cramping of roots that has hitherto been found unavoidable when dealing with the larger-sized trees.

On the extension property an expenditure of £39 9s. 7d. was incurred under the heading of "Formation." The Rankleburn Gorge route being considered favourable for the conveyance of trees, 40 chains of roading and 5 chains of cuttings were formed, at 7s. 4½d. per chain, and no difficulty should arise, even in frosty weather, in carriage of trees from Tapanui. 70 chains of new fire-breaks, 100 ft. wide, was made on the summit of the leading range, at 5s. 11½d. per chain, and this forms the main break between the planted and extension blocks.

Horse-work here has now become a big item, but this year it was possible at intervals to work two teams from Tapanui, and fire-break labour was completed earlier than usual.

Trees established have made exceptionally vigorous growth during the past season, and one large break of *Pinus ponderosa* and *P. Benthamiana* occupying an exposed south-westerly situation may be singled out for favourable comment. These pines for two years only made the usual headway, but there are many that have added over 2 ft. to their height this year, while the average should reach about 18 in. Larch still proves to be the fastest-growing tree dealt with, and also the least expensive as far as maintenance work is concerned.

Pinus Laricio and *P. Austriaca* are both consistent growers here, although the former variety, after becoming fully established, produces foliage of a more healthy colour than the latter. The hardwoods are growing strongly in gullies, and it is anticipated that the cutting-back to ground-surface of bark-bound oak and ash will be the means of inducing the trees to make new strong leaders. A better report of the spruces can be given than formerly, although it only requires a comparatively light frost to destroy their delicate leaders, and pruning must always be considered a costly item in these blocks. The extension property being approximately three miles distant from old camps, it was necessary to provide additional accommodation for employees at a more convenient site, and three well-finished buildings, 18 ft. by 12 ft., were erected, at a cost of about £65 each.

General repairs and additions were also made to the Forester's house on lower plantation, and minor repairs effected to the building on extension property. The latter dwelling-house, which is now occupied by one of the Foresters, is in a state of decay, and the whole place has fallen a prey to the destructive wood-borer. The erection of a cottage here would dispense with the necessity of almost continual repairing, and be greatly appreciated by the Forester.

The area originally enclosed being planted, the main gang of employees are at present occupied in pitting on extension block. A considerable amount of labour, however, was necessary in tree-pruning, cleaning around trees, and replanting failures on old block, and the recent appointment of an additional Assistant Forester to carry on this work has been attended with success.

Rabbiting has been steadily proceeded with, and trees may now be transplanted to their permanent positions on the extension area without any likelihood of interference by the pest.

Owners of adjoining properties settled their fencing accounts in full, and the total receipts, amounting to £123 13s. 10d., were transmitted to the Receiver of Land Revenue.

A statement of expenditure for the year is appended.

The average number employed was 15·52 men.

Statement of Expenditure.

	£	s.	d.
Amount at 31st March, 1908	9,686	17	11
Pitting	473	4	0
Tree-planting	354	9	11
Formation	37	9	7
Cartage of trees and railage	93	3	5
General upkeep of plantation	507	4	10
" repairs	98	0	4
Horse-feed purchased and grown	11	7	2
Buildings, employees' quarters	198	11	7
Tools, implements, &c.	22	6	3
Miscellaneous works	35	10	4
Salaries—			
Foresters	295	0	0
Nurseryman's proportion of	40	0	0
Supervision	24	6	8
	£11,877	12	0

W. HOWE,
W. G. MORRISON, } Assistant Foresters.
R. G. ROBINSON, Forester in Charge.

GIMMERBURN PLANTATION RESERVE.

(Area, 1,200 acres; altitude, 1,200 ft.)

Owing to the dry spell during the spring, the trees planted have not done well, but those planted during the first year of operations here are doing fair.

The number of trees planted for the year was 101,460, all of which were used up to fill blanks.

The area planted to date is 173½ acres.

The cost of planting and digging (half-pits) was 15s. 6½d. per thousand.

An area of 24 acres was sown down in oats, the yield being 15 tons. 105 acres of self-sown oats was also cut, yielding 35 tons.

Oats and sheaf to the value of £73 8s. 2d. were transferred to nurseries, and the value of oats in stock is £112.

The expenditure for the year amounts to £366 11s. 11d., and the expenditure to date £2,366 6s. 2d.

The average number of hands employed was 1·56 (wages).

Statement of Expenditure.

	£	s.	d.
Amount at 31st March, 1908	1,999	14	3
Tree-planting	85	17	4
Cartage of trees	9	2	0
General upkeep of plantation	72	15	5
Horse-feed purchased and grown	144	10	6
Salaries, Nurseryman's proportion of...	30	0	0
Supervision	24	6	8
	<u>£2,366</u>	<u>6</u>	<u>2</u>

A. W. ROBERTS,
Nurseryman in Charge.

NASEBY SURVEY Paddock PLANTATION.

(Area, 175 acres; altitude, 1,900 ft.)

During the year the trees at the above plantation have made very satisfactory growth; the heavy snow-fall in July gave the land a good soaking, with the above results.

The trees that are doing best are *Pinus ponderosa*, *Pinus Benthamiana*, and *Pinus Laricio*, *Pinus Austriaca* and *Larix Europæa* being somewhat slower.

Trees to the number of 31,200 were planted out, at an average cost of 18s. 5d. per thousand.

21,650 laburnums were also carted, and 10,000 were planted close with the plough, at a cost of £1 1s. 6d., the remainder being heeled in for future use. These are planted for protection to the other species from hares and rabbits, and since planting fourteen hares were caught in traps alongside. The area planted was 10½ acres, making a total to date of 143 acres.

The number of trees in the plantation to the 31st March, 1909, was 389,285.

The expenditure for the year was £193 2s. 2d., and the total expenditure to date is £2,266 12s. 7d.

An area of about 200 acres is to be taken in on what is known as the Naseby Commonage, and a further extension of the above will be carried out here. Arrangements are being made to have it ready for planting in the coming spring.

The average number of hands employed was 1·20 (wages).

Statement of Expenditure.

	£	s.	d.
Amount at 31st March, 1908	2,073	10	5
Tree-planting	28	11	3
Cartage of trees	4	11	0
General upkeep of plantation	105	13	3
Salaries, Nurseryman's proportion of...	30	0	0
Supervision	24	6	8
	<u>£2,266</u>	<u>12</u>	<u>7</u>

A. W. ROBERTS,
Nurseryman in Charge.

HANMER SPRINGS PLANTATION.

(Area, 1,488 acres; altitude, 1,225 ft.)

Tree-planting operations at this station during the past year have been attended with exceptionally favourable results, and the trees of all ages throughout the plantation have made much better growth than during the last few years.

The percentage of failures amongst trees planted during the year is much smaller than usual, and it is estimated that not more than 5 per cent. of losses have occurred amongst all species of trees planted. These losses have been almost entirely confined to where the trees were planted on dry gravelly soil.

The total number of trees planted during the year was 568,060, and the number used to replace blanks was 168,280 trees.

The area planted during the year was 208 acres, and the plantation now comprises 876 acres, containing 2,431,230 trees.

Free Labour.—The average daily number of free men employed was three, and the cost of the various works undertaken was as follows: Pitting for tree-planting, 12s. 6d. per thousand; tree-planting, 12s. 6d. per thousand; clearing round trees and cultivating fire-breaks, £112 18s. 6d.; pruning trees, £5 16s. 7d.; removal of Dungree Prison Camp to Hanmer, £200; clearing for tree-planting, £1 per acre.

The clearing of growth from around the smaller trees necessitated a considerable amount of labour being expended, and during the summer months two men were constantly employed at this work.

Some ten miles of fire-breaks were ploughed and cultivated, and on portions of plantation this work was very difficult, owing to the stony nature of the ground.

Pruning was continued where necessary, and all trees which required attention in this respect were dealt with.

The replanting of blanks was done entirely by free labour.

The number of pits opened during the year was 435,000, and the number available for tree-planting to date (including pits dug by prison labour) is 303,202. Clearing for tree-planting amounted to 41 acres.

A fire-break 30 chains by $1\frac{1}{2}$ chains wide was ploughed through the centre of new plantation area, and four miles of fire-break half a chain wide was ploughed round plantation-boundary.

The growth of larch of all ages throughout the plantation has been remarkably good during the year, and amongst the older trees the vertical growth for the year varies from 12 in. to 48 in., while the average growth of trees planted during the year is 12 in.

Of the various pines planted, *Pinus Laricio* and *Pinus ponderosa* continue to show the best results, and these species may be safely planted on poor gravelly soils in this locality. The average vertical growth of trees planted during the year is 4 in., and the growth of the older trees varies from 12 in. to 30 in.

A considerable amount of labour has been necessary during the year in keeping hares and rabbits in check, and it has been necessary to provide a number of dogs for this purpose. No damage of any consequence has been done by these pests.

The results of ploughing fire-breaks on boundaries and through plantations has been entirely satisfactory, and no damage has been caused by fire.

Prison Labour.—The average number of prisoners employed at forestry work during the year was thirteen daily, and the average value of each prisoner's work for the year was £33 0s. 6d. The total value of prison labour for the year was £429 7s. 3d.

The details and values of work done by prisoners is as follows: Clearing for tree-planting, £71 1s. 10d.; pitting for tree-planting, £145 3s. 10d.; tree-planting, £136 5s. 4d.; maintenance, £56 10s.; road formation, £5 8s. 9d.; fencing horse-paddock, £4 10s.; building workshop, £1 16s. 3d.; miscellaneous works, £8 11s. 3d.

The pits opened numbered 323,893; trees planted, 431,490; clearing, 96 acres; road formation, 60 chains; fencing, 60 chains.

The details of expenditure for the year and expenditure to date are appended.

Statement of Expenditure.

	£	s.	d.
Amount at 31st March, 1908	4,374	4	1
Pitting	352	18	6
Tree-planting	42	7	0
Cartage of trees	5	4	6
General upkeep of plantation	281	9	11
Horse-feed purchased and grown	1	4	0
Fencing	34	4	6
Buildings	39	18	1
Tools, implements, &c.	56	18	0
Salaries—			
Supervision of prison labour	72	10	0
" free labour	72	10	0
Nurseryman's proportion of, and travelling-expenses	90	0	0
Supervision	36	10	0
Removal of prison camp	224	2	11
	£5,684	1	6

R. LEASK, Assistant Forester.

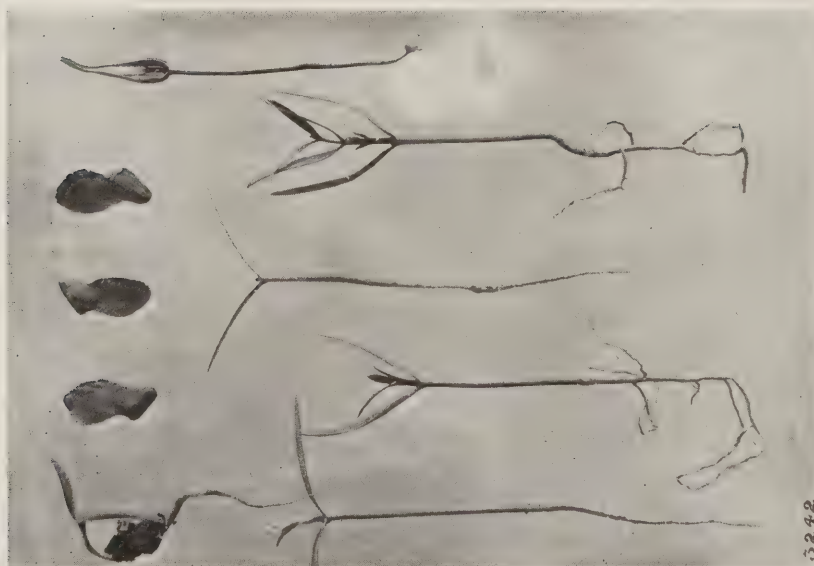
T. B. CURLE, Forester in Charge.



Fagus fusca (NATIVE BEECH)—7 YEARS OLD, 9 FT. HIGH.



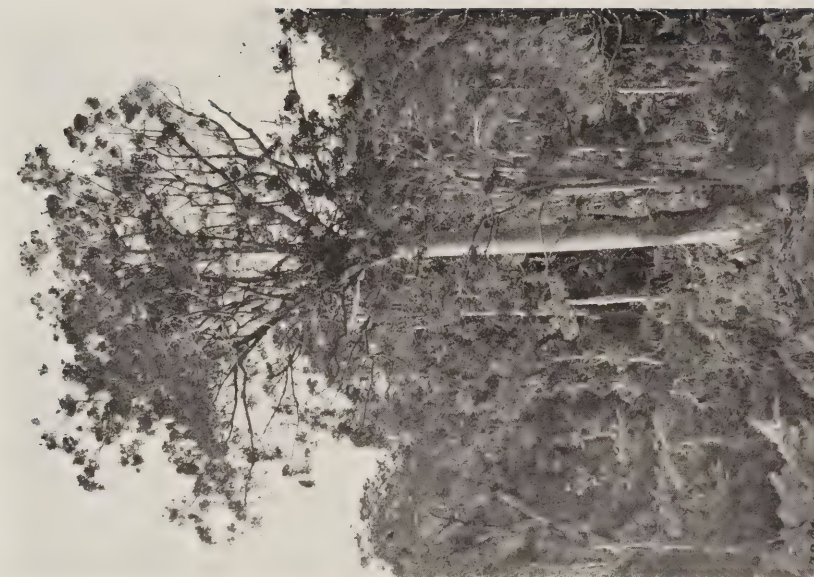
Sequoia sempervirens (CALIFORNIAN REDWOOD)—7 YEARS OLD, 25 FT. HIGH.



(a.)



(b.)



(c.)

THREE STAGES OF *Agathis Australis* (KAURI): (a) SEEDS AND SEEDLINGS; (b) A TREE ABOUT 40 YEARS OLD; (c) A FULL-GROWN TREE.

KAINGAROA PLAINS EXPERIMENTAL PLANTATIONS, NEAR WAIOTAPU.

(Total area, 25 acres; approximate altitude, 2,000 ft.)

These four experimental areas are now being worked in conjunction with the Waiotapu Plantation, such work as pruning and attending to fire-breaks being performed by the prisoners.

R. MACRAE, Assistant Forester.

H. A. GOUDIE, Nurseryman in Charge.

WAIOTAPU PLANTATION.

(Approximate area, 6,700 acres; approximate altitude, 1,200 ft.)

The rainfall for the past year amounted to 42.06 in., falling on 93 days. The maximum temperature recorded during the year was 86° Fahr., in December and March; and the minimum, 17° Fahr., or 15° of frost, was registered in August.

Prison Labour.—The prison camp was shifted to a new site on the Maungakakamea Block about the end of April, 1908, and on this block the main portion of the work by prisoners was performed. The average daily number of prisoners employed during the year was 32.83, and the value of work done was £3,496 19s. 2d., or an average of £106 10s. 4d. per man. The work of shifting the prison camp was done almost entirely by prison labour. The new buildings erected comprise a store-room, a five-roomed building with a kitchen, officers' mess-room, scullery, bath and coal house, a bakehouse in which a portable oven is fitted, and a laundry and a lavatory. The stable was removed from the old site and re-erected with the addition of six stalls, a harness room, a carpenter's shop, and a large lean-to for housing the implements and vehicles. The smithy was also removed, and when re-erected a lean-to was built for storing tools. An efficient water-supply is obtained by lifting the water from a stream near the camp with a hydraulic ram to a concrete cistern on a near hill, from which the supply gravitates to the kitchen and where else it is required. From this camp the land will be planted in wedge-shaped blocks, and at the present rate of planting the camp will not need to be again shifted for about six years.

Tree-planting was commenced on the 12th April, and finished about the end of September, being delayed owing to extra work involved in shifting the camp. The prisoners planted 2,097,725 trees on a new area, 12,500 to replace failures in former years' planting, and 348 ornamental shrubs and plants about the camp site. Of the trees planted, larch, *Pinus ponderosa*, *Pinus Benthamiana*, *Pinus Austriaca*, *Pinus Strobus*, and birch have, as usual, succeeded satisfactorily, having made good growth, while the death-rate is very low. *Pinus Laricio* encountered severe frosts shortly after being planted, and the death-rate from this cause amounted to about 10 per cent.

Redwood was planted amongst the larch every 16 ft., and where sheltered have done best. Very little growth was made, as the majority of the trees were nipped back by the frost, but have since broken away from the bottom of the stem. As the larch fill out and afford more shelter the redwood will probably do better.

For next season's planting an area of about 800 acres has been cleared, and pits dug at 4 ft. apart. This land has been roaded and fire-breaks laid out. The road was also continued through an adjoining pastoral run, and connected with the Waimungu and Waiotapu Road. By carting the trees in by this road a good deal of time will be saved, as the road *via* Waiotapu is about four miles longer.

An area of 50 acres was ploughed and sown down in grass and clovers for use as a horse-paddock. A strip of land along the banks of a creek containing rough feed was enclosed for the horses, and used until the new paddock was fit to use. The want of good grass was badly felt, as it was about twelve months after shifting the camp before the new paddock was available. In this connection it seems advisable that the site for the future camp should be selected some years ahead, and an area sown down with grass and planted with a belt of shelter-trees.

Free Labour.—At the first prison-camp site a foreman was stationed with a gang of free men, who attended to such matters as replacing blanks in former planting and the maintenance of the plantation generally. During last winter this gang planted 64,700 trees on a new area, and 235,300 trees where deaths had occurred amongst trees previously planted. During the summer months most of the plantation was gone over and attended to by way of pruning, repairing roads, and attending to fire-breaks and fences. The back end of this block, which still remains unplanted, will be gradually dealt with by free labour, and preparations are now being made to plant half a million trees.

Fencing.—The Maungakakamea Block has now been enclosed with a post-and-wire fence, all but about a mile stretch, which will be completed shortly.

By free and prison labour 2,162,425 trees were planted on a new area of 794½ acres, and the total number of trees now growing at this plantation is 9,095,359, occupying an area of 3,523 acres.

The following is a record of rainfall and temperature for the year:—

Month.	Number of Days Rain fell.	Total Fall.	Maximum Fall.	Date.	Highest Reading of Ther- mometer.	Date.	Lowest Reading of Ther- mometer.	Date.
1908.		Inches.	Inches.		Degrees.		Degrees.	
April ...	10	3·66	1·25	21st	75	30th	37	18th
May ...	13	6·18	1·53	31st	70	2nd	24	22nd
June ...	10	2·90	0·75	4th	68	6th	20	21st
July ...	9	2·23	0·85	31st	60	1st	17	31st
August ...	9	3·65	1·13	17th	63	31st	17	1st
September ...	7	3·81	1·03	16th	67	7th	25	19th
October ...	10	3·76	1·40	2nd	79	9th	25	31st
November ...	3	1·37	1·20	19th	80	29th	25	3rd
December ...	4	4·06	1·50	23rd	86	19th	34	9th
1909.								
January ...	7	2·44	0·80	28th	83	23rd	30	17th
February ...	1	0·10	0·10	12th	83	16th	32	23rd
March ...	10	7·90	2·00	26th	86	1st	32	3rd
Totals ...	93	42·06	...	...	...	...	...	...

Statement of Expenditure.

	£	s.	d.
Amount at 31st March, 1908	5,209	17	3
Formation	90	8	0
Tree-planting	95	7	6
Clearing	56	3	0
Cartage of trees	108	10	0
General upkeep of plantation	377	17	5
" repairs	119	18	11
Horse-feed purchased and grown	144	3	11
Fencing	250	19	7
Buildings	370	3	3
Tools, implements, &c.	52	15	10
Miscellaneous works	3	0	0
Salaries—			
Supervision of prison labour	294	4	8
" free labour	123	7	6
Nurseryman's proportion of	42	15	6
Supervision	24	6	8
	£7,363	19	0

H. A. GOUDIE,
Nurseryman in Charge

WHAKAREWAREWA PLANTATION.

(Approximate area, 8,912 acres; approximate altitude, 1,200 ft.)

During the past season trees to the number of 2,078,250 were dealt with. 1,841,100 were planted on a new area of 838½ acres, and the remainder—237,150—were used to replace failures in former plantings. The total area planted to date in this reserve is 3,157½ acres, containing 6,883,226 trees.

Prison Labour.—The employment of prison labour has again been attended with very satisfactory results, for which much credit is due to the Prisons departmental officers for the manner in which they have assisted to carry out the various works on which the men were employed. The daily average of men employed was 13·16, and their work was valued at £971 10s., or an average for the year of £73 16s. 5d. per man, thus showing an increase of 10s. 4d. per man on the previous year's results.

Free Labour.—An average daily number of 32·72 men were employed, and the cost of the various works undertaken was as follows: Clearing for tree-planting, £1 10s. 10d. per acre; pitting, 10s. 6d. per thousand; planting, 8s. 6d. per thousand; and formation of roads, including clearing line, £1 11s. 9d. per chain. Taken all round, the area planted during the past season was the roughest so far taken in hand, and the growth of manuka, tutu, and fern on it was very heavy. This accounts for the increase that will be noticed in the cost of clearing, pitting, and planting as compared with the cost of the same works during the past season.

In maintenance work the chief item was pruning, which was carried on amongst the older larch throughout the summer. A considerable amount of work was also done in keeping down the growth amongst the trees, and in the maintenance of fire-breaks.

In the early part of the year a camp was formed for convalescent consumptive patients from Cambridge Sanatorium, who were given employment planting trees at 8s. per thousand, and clearing at £1 per acre.

The average daily number of men employed from this camp for the past ten months was 7.15, and their total earnings amounted to £444 5s. 8d.

The erection of buildings and other works in connection with the new prison camp at Green Lake (Rotokakahi) are being rapidly pushed on, and it is expected that everything will be completed by the end of May.

The past season, as regards the general growth of trees throughout the plantation, has been a very good one, and all the trees planted this season have done fairly well with the exception of redwood, a large number of which were killed outright by frost soon after they were planted. Larch were also affected by frosts which occurred in October and November, but have since recovered, and have made very good growth. On the whole, the pines have done very well, although there are slightly more failures than usual amongst all species, chiefly owing to the dry weather at the time of planting.

Three species of eucalypti were planted, and all have done well, *E. Stuartiana* especially having made splendid growth, with very few failures amongst them.

Acacia melanoxylon has also made good growth, but all former plantings of this species have become affected by blight, from which it will take them some time to recover.

Preparations are in hand for planting about two million trees during the coming season.

Details of expenditure are appended.

D. J. BUCHANAN, Assistant Forester.

H. A. GOUDIE, Nurseryman in Charge.

Statement of Expenditure.

	£	s.	d.
Amount at the 31st March, 1908	13,541	13	5
Pitting	1,030	19	2
Tree-planting	422	14	1
Clearing	1,663	1	1
Cartage of trees	58	16	11
General upkeep of plantation	460	16	8
" repairs	82	6	11
Horse-feed purchased and grown	105	15	1
Formation	268	4	3
Buildings, shifting prison camp	95	7	0
Tools, implements, &c.	49	6	1
Miscellaneous works	2	1	0
Salaries—			
Supervision of prison labour	160	0	0
" free labour	141	16	8
Nurseryman's proportion of	42	15	6
Supervision	24	6	8
	£18,150	0	6

PUHIPUHI PLANTATION.

(Area, 10,000 acres; altitude, 1,000 ft.)

With the exception of February, there has been a uniform rainfall through the year. For 169 days the total rainfall was 71.45 in. The heaviest fall was during March, 8.98 in. being recorded for sixteen days. Maximum temperature, 87°; minimum temperature, 24°.

There were 536,443 trees received from the nursery; from this number 35,500 were used in planting up blanks, due to total failure of *Pseudo-tsuga taxifolia* as noted in last year's report. 30,915 were utilised to replace blanks in 1906-7 planting, the new area occupied for the season being 387 acres. 1,488,238 trees have been planted out to date, on 1,512 acres. The average cost of tree-planting was 11s. 5d. per thousand, as against 11s. 8d. for the previous year.

Cartage on trees cost £58 16s. 4d. 470,950 spade and grubber pits were made, at an average cost of 16s. 4d. per thousand. No pits are available for next season's planting. 139 acres of standing dead timber and ti-tree was felled by hand-labour and contract, and cost at the rate of 4s. 4d. per acre; and 294 acres of fern land was burnt off, at 1s. 5d. per acre. About 100 acres is gravelly, and in places sour, the remaining area ranging from fair to good.

The chain wide fire-break formed last year has made a fair protection against fire; the chief drawback is getting cattle when they are most required. The settlers, naturally, will not put in stock until there is plenty of feed, consequently the fern is not destroyed as quickly as could be desired to make an efficient fire-break. 285 chains of boundary fire-break was cleared of fern and timber, at an average width of half a chain; of this, 65 chains was ploughed. 3,010 chains of boundary-fence line was scuttled with spades 3 ft. wide on each side of the fence.

There was 220 chains of fencing purchased at 3s., 80 chains at 2s., 18 chains at 4s. 6d., and 24½ chains at 3s. 6d. per chain. 20 chains of fencing was erected; the Department supplied the material, the adjoining settler the labour.

Two two-roomed houses were purchased, at a cost of £31 3s. 3d., including the haulage and re-erection of one of the houses to a convenient site, near to the stable, for the use of the horseman.

The season has been very favourable for tree-growing, but owing to part of the area being very poor, the results are not as good as might be expected. *Eucalyptus Stuartiana* have done exceptionally well, *E. rostrata* and *E. resinifera* have also made good growth; in many instances these have attained a height of 2 ft. Fully 20 per cent. of the *Eucalyptus amygdalina* have died, while *E. redunca* have been a complete failure. Some 400 of each species of eucalypti grown were planted unmossed, and the result is very gratifying. *E. Stuartiana*, *E. rostrata*, and *E. resinifera* have done equally as well as those that were mossed. In *E. redunca* the deaths were 25 per cent. and *E. amygdalina* about 11 per cent. With one exception these trees were planted on flat land, in rather better soil than the mossed trees.

The *E. Stuartiana* planted on a hillside stood the dry spell in February very well. This species has proved itself to be wonderfully adapted to this soil and climate; being a very sure grower, it has not been necessary to plant up the blanks in the break planted two seasons ago. One specimen of this planting has reached a height of 10 ft. 9 in.

Of the trees planted five years ago, there are several specimens of *E. redunca* 25 ft. high, the girths varying from 14 in. to 19 in.; also a few *E. rostrata* of a like height, with a 13 in. girth.

The *E. rostrata* and the *E. resinifera* are the best growers of the earlier plantings.

Podocarpus totara being a very slow and somewhat uncertain grower against the vigorous growth of the fern, the cost of cleaning is necessarily great; it has been deemed advisable to discontinue planting this tree, the area now occupied with totara to be planted up with eucalypti.

Cleaning and planting trees and upkeep of fire-breaks, &c., cost £463 10s. 10d.

Average number of men employed, 9.92.

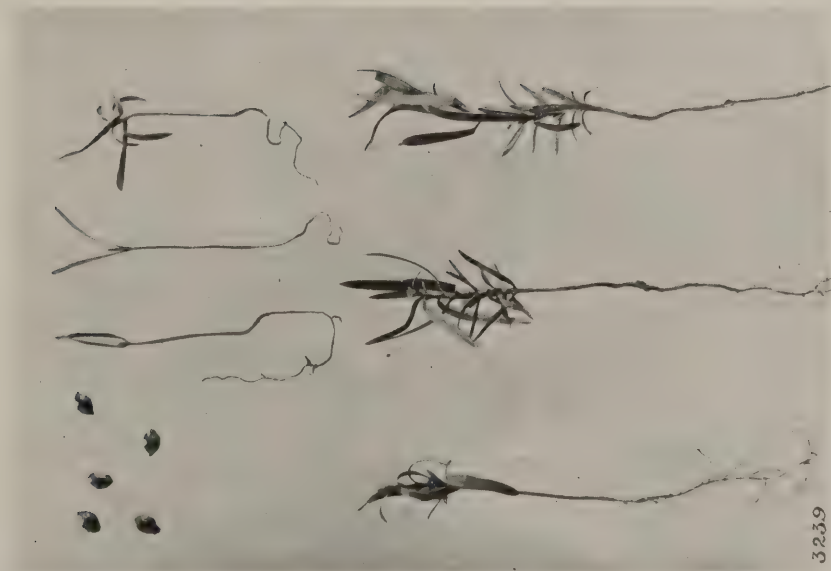
The following is a record of the rainfall and temperature for the year:—

Month.	Rainfall.	Number of Days Rain fell.	Maximum Temperature.	Date.	Minimum Temperature.	Date.
1908.	Inches.		Degrees.		Degrees.	
April	6.31	10	78	14th	40	24th
May	5.63	12	70	4th	30	31st
June	5.76	12	66	4th	32	19th
July	6.87	22	64	22nd	28	31st
August	8.52	16	64	22nd, 23rd, and 25th	24	7th
September	5.73	16	68	6th, 7th, and 21st	34	1st and 12th
October	5.26	20	74	6th and 8th	38	28th
November	5.52	13	78	10th, 24th, and 30th	38	15th
December	7.40	12	87	21st	44	2nd, 3rd, and 13th
1909.						
January	4.54	13	87	6th	42	16th
February	0.93	7	82	16th and 23rd	46	19th and 21st
March	8.98	16	80	2nd, 3rd, 5th and 6th	46	31st
Totals	71.45	169	...	...	...	...

Statement of Expenditure.

	£	s.	d.
Amount at the 31st March, 1908	4,788	13	4
Pitting	386	18	9
Tree-planting	254	12	10
Clearing	46	17	6
Cartage of trees	58	16	4
General upkeep of plantation	463	10	10
" repairs	41	10	11
Horse-feed purchased and grown	18	15	1
Fencing	91	4	0
Buildings	43	15	3
Tools, implements, &c.	49	18	10
Miscellaneous works	5	3	9
Purchase of land	10	4	3
Salaries—			
Supervision of free labour, Forester's	170	0	0
Nurseryman's proportion of	20	0	0
Supervision	36	10	0
	£6,486	11	8

J. MASON, Assistant Forester.
A. GORDON, Forester in Charge.



(a.)



(b.)



(c.)

THREE STAGES OF *Podocarpus totara* (TOTARA): (a) SEEDS AND SEEDLINGS; (b) A TREE ABOUT 30 YEARS OLD; (c) A FULL-GROWN TREE.

WAITAHUNA PLANTATION, OTAGO.

(Dredged area, 12 acres; altitude, 331 ft.)

Residents of this district report that, owing to an unusually dry spring being experienced, agriculture generally was greatly interfered with, but no sign of even a partial drought is noticeable throughout the area planted under trees.

The distance of this station from Tapanui forbids frequent visits of a Forester, and the Department is indebted to a resident tree-planting enthusiast for his courtesy in supplying occasional reports relating to the progress of trees.

The species that gave the most promise of success during the first year's operations continue to thrive, particularly English birch, which have added in many cases 4 ft. to their height. Larch and alder are also developing beyond expectations, and the progress is more pronounced with each succeeding year. *Pinus ponderosa*, *P. Austriaca*, and *P. muricata* are all producing sturdy leaders, and many of these trees have attained a height of 3 ft. The spruces unfortunately experienced a sharp frost in September, and were unable to make a satisfactory recovery by the end of the growing season. Very little headway has been made by either oak, ash, or sycamore, although where the surface consists of a large proportion of clay deposit, the oak has shown to better advantage.

Gorse and broom are spreading quickly, and, although an expenditure of £6 18s. was last year devoted to the cutting of same, a recent inspection of the plantation shows that urgent attention in this direction is again required. There is no doubt that the block, being surrounded by immense gorse bushes, will continue to be a germinating-ground for these noxious plants, and it would probably be advantageous to remove the varieties of trees that are not succeeding on the plantation and replace same with the fast-growing larch.

The river overflowed its banks and flooded a small portion of the reserve without creating any damage to trees or boundary-fence.

The expenditure for the year amounted to £14 10s. 6d., and gave employment to one man for three weeks.

Statement of Expenditure.

	£	s.	d.
Amount at 31st March, 1908	166	10	3
General upkeep of plantation	6	18	0
Nurseryman's proportion of salary, and travelling-expenses	7	12	6
	£183	0	9

R. G. ROBINSON,
Forester in Charge.

REFERENCE-LIST OF FOREST TREES AND SHRUBS GROWN AT THE VARIOUS NURSERIES AND PLANTATIONS, 1908-9. (E, EVERGREEN; D, DECIDUOUS.)

Name of Tree.	Synonym.	Common Name.	Habitat.
<i>Acacia melanoxylon</i> (E) ..	..	Blackwood	South-east Australia.
<i>Acer saccharum</i> (D) ..	<i>Acer saccharinum</i> ..	Sugar-maple	North America.
" <i>pseudo-platanus</i> (D) ..	..	Sycamore	Europe and Asia.
<i>Æsculus hippocastanum</i> (D)	..	Horse-chestnut	South-east Europe.
<i>Alnus glutinosa</i> (D) ..	..	Alder	Europe and Asia.
<i>Betula alba</i> (D) ..	..	Silver-birch	Europe.
<i>Berberis aristata</i> (D) ..	..	Barberry	Northern India.
<i>Castanea sativa</i> (D) ..	<i>Castanea vesca</i> ..	Sweet or Spanish chestnut ..	Europe and Asia.
<i>Catalpa speciosa</i> (D) ..	<i>Bignonia catalpa</i> ..	Hardy catalpa	United States.
<i>Chamaecyparis Lawsoniana</i> (E)	<i>Cupressus Lawsoniana</i>	Lawson's cypress, or white-cedar	Northern California.
<i>Cordylone Australis</i> (E) ..	" <i>Australis</i> ..	Ti, or cabbage-tree	New Zealand.
" <i>indivisa</i> (E) ..	" <i>indivisa</i> ..	Toi	South Island, New Zealand.
<i>Eucalyptus amygdalina</i> (E)	..	Almond-leaved peppermint-gum	Victoria, New South Wales, and Tasmania.
" <i>calophylla</i> (E) ..	..	Red-gum	South-west Australia.
" <i>capitellata</i> (E) ..	..	Head-flowered stringy-bark	New South Wales and Gippsland.
" <i>corymbosa</i> (E) ..	..	Bloodwood	New South Wales and South Queensland.
" <i>coccifera</i> (E) ..	..	Mountain-peppermint	Alpine districts of Tasmania.
" <i>corynocalyx</i> (E) ..	..	Sugar-gum	South-east Australia.
" <i>crebra</i> (E) ..	..	Narrow-leaved ironbark	New South Wales and Queensland.
" <i>ficifolia</i> (E) ..	..	Scarlet-flowering gum	South west Australia.
" <i>globulus</i> (E) ..	..	Blue-gum	Tasmania and Victoria.
" <i>Gunnii</i> (E) ..	..	Cider-gum	Victoria, New South Wales, and Tasmania.
" <i>hæmastoma</i> (E) ..	..	Gum-topped stringy-bark	Tasmania and Victoria.
" <i>leucoxylon</i> (E) ..	<i>Eucalyptus sideroxylon</i>	Victorian red ironbark	South Australia.
" <i>macrorhyncha</i> (E) ..	..	Stringy-bark of Victoria	Victoria.
" <i>marginata</i> (E) ..	..	Jarrah	South-west Australia.
" <i>Muellerii</i> (E) ..	..	Mountain red-gum	Mountains of Tasmania.
" <i>maculata</i> (E) ..	..	Spotted gum	New South Wales and Queensland.
" <i>obliqua</i> (E) ..	..	Stringy-bark or messmate	Victoria, New South Wales Tasmania.
" <i>pauciflora</i> (E) ..	<i>Eucalyptus coriacea</i> ..	White or drooping gum	Ditto.

REFERENCE-LIST OF FOREST TREES AND SHRUBS GROWN AT THE VARIOUS NURSERIES AND PLANTATIONS, 1908-9. (E, EVERGREEN; D, DECIDUOUS)—*continued*.

Name of Tree.	Synonym.	Common Name.	Habitat.
<i>Eucalyptus paniculata</i> (E) ..	<i>Eucalyptus fasciculosa</i>	Red ironbark	New South Wales and South-west Australia.
" <i>pitularis</i> (E) ..	..	Blackbutt	New South Wales, Queensland, and Gippsland.
" <i>regnans</i> (E) ..	..	Swamp-gum	Tasmania and Victoria.
" <i>saligna</i> (E) ..	..	Grey or flooded gum ..	New South Wales and South Queensland.
" <i>Stuartiana</i> (E) ..	..	Apple-scented gum ..	Tasmania and South-east Australia.
" <i>Sieberiana</i> (E) ..	<i>Eucalyptus virgata</i> ..	Yowut, mountain ash ..	Ditto.
" <i>siderophloia</i> (E) ..	" <i>persicifolia</i>	Sydney ironbark	Eastern Queensland and Port Jackson.
" <i>teretecornis</i> (E) ..	..	Red-gum of Queensland ..	New South Wales and Gippsland
" <i>urnigera</i> (E) ..	..	Urn-bearing gum	Tasmania.
" <i>redunca</i> (E) ..	..	The wando or white-gum ..	Western Australia.
" <i>resinifera</i> (E) ..	..	Red or forest mahogany ..	New South Wales and Queensland.
" <i>viminalis</i> (E) ..	..	Swamp or manna gum ..	Tasmania and Victoria.
<i>Fraxinus Americana</i> (D) ..	<i>Fraxinus Acuminata</i> , F. <i>alba</i>	White American ash ..	Eastern United States.
<i>Fraxinus excelsior</i> (D) ..	..	English ash	Europe and Asia.
<i>Fagus sylvatica</i> (D) ..	..	Beech	Europe.
<i>Hikora ovata</i> (D) ..	<i>Carya alba</i>	Shagbark, hickory	Eastern North America.
" <i>pecan</i> (D) ..	" <i>olivæformis</i> ..	Pecan-nut	"
<i>Juglans cinerea</i> (D) ..	..	Butternut	"
" <i>nigra</i> (D) ..	..	Black walnut	"
" <i>regia</i> (D) ..	..	Walnut	Europe and Asia.
<i>Juniperus Virginiana</i> (E) ..	<i>Juniperus Barbadosensis</i>	Red cedar	North America.
<i>Larix Europæa</i> (D) ..	<i>Pinus larix</i>	European larch	Europe.
<i>Liriodendron tulipiferum</i> (D)	..	Tulip-tree, basswood ..	United States.
<i>Laburnum vulgare</i> (D) ..	<i>Cytisus laburnum</i> ..	Laburnum	Europe.
<i>Phormium tenax</i> (E) ..	..	Flax	New Zealand.
<i>Picea excelsa</i> (E) ..	<i>Abies excelsa</i>	Norway spruce	Europe.
" <i>sitchensis</i> (E) ..	" <i>Menziesii</i>	Tideland spruce	Alaska, Northern Canada.
" <i>Canadensis</i> (E) ..	..	White-spruce	North-east United States.
<i>Pinus Austriaca</i> (E) ..	..	Austrian pine	Southern Europe.
" <i>Canariensis</i> (E) ..	..	Canary pine	Canary Islands.
" <i>contorta</i> (E) ..	<i>Pinus Murrayana</i> , <i>Pinus Bolanderi</i>	Twisted pine	Alaska to California.
" <i>Coulterii</i> (E) ..	<i>Pinus macrocarpa</i> ..	Great-coned pine	California.
" <i>excelsa</i> (E) ..	" <i>pendula</i>	Himalayan pine	Himalayan Mountains.
" <i>flexilis</i> (E) ..	..	Limber pine	Rocky Mountains, Sierra Nevada.
" <i>halepensis</i> (E) ..	..	Aleppo pine	Levant.
" <i>Lambertiana</i> (E) ..	..	Sugar-pine	Northern California, Oregon.
" <i>Laricio</i> (E) ..	..	Corsican pine	Southern Europe.
" <i>muricata</i> (E) ..	..	Prickly-coned or Bishop's pine	California.
" <i>ponderosa</i> (E) ..	..	Heavy or bull pine	North-west America.
" <i>ponderosa</i> , var. <i>Benth-</i> <i>thamiana</i> (E) ..	..	Bentham's yellow-pine ..	British Columbia.
<i>Pinus pinaster</i> (E) ..	<i>Pinus maritima</i> ..	Cluster-pine	Southern Europe.
" <i>radiata</i> (E) ..	" <i>insignis</i>	Monterey pine	California.
" <i>rigida</i> (E) ..	..	Pitch-pine	New England to Virginia.
" <i>Sabiniana</i> (E) ..	..	Nut-pine	California.
" <i>strobus</i> (E) ..	..	Weymouth pine	North America.
<i>Piptanthus Nepalensis</i> (E) ..	..	Evergreen laburnum ..	Himalayas.
<i>Pittosporum crassifolium</i> (E)	..	Karo	New Zealand.
" <i>eugenioides</i> (E) ..	..	Matipo, tarata	"
" <i>tenuifolium</i> (E) ..	..	" <i>tawhiri</i>	"
" <i>Buchananii</i> (E) ..	..	" <i>tawhiwhi</i>	"
<i>Populus deltoides</i> (D) ..	<i>Populus monilifera</i> , <i>Populus Canadensis</i>	Canadian or black Italian poplar	North America.
<i>Populus nigra pyramidalis</i> (D) ..	<i>Populus dilatata</i> , <i>Popu-</i> <i>lus fastigata</i>	Lombardy poplar	Europe and Northern Asia.
<i>Podocarpus dactyloides</i> (E)	..	Kahikatea	New Zealand.
" <i>totara</i> (E) ..	<i>Nageia totara</i>	Totara	"
" <i>Hallii</i> (E) ..	" <i>Hallii</i>	Large-leaved totara ..	"
<i>Pseudo-tsuga taxifolia</i> (E) ..	<i>Abies Douglasii</i> ..	Oregon pine	British Columbia, Pacific Coast, &c.
<i>Pyrus aucuparia</i> (D) ..	<i>Sorbus aucuparia</i> ..	Rowan-tree, mountain-ash ..	Europe and Asia.
<i>Quercus coccinea</i> (D) ..	..	Scarlet oak	Eastern North America.
" <i>macrocarpa</i> (D) ..	..	Burr oak	"
" <i>pedunculata</i> (D) ..	<i>Quercus robur</i>	British oak	Europe and West Asia.
" <i>palustris</i> (D) ..	..	Pin-oak	South-east of North America.
" <i>suber</i> (D) ..	..	Cork-oak	Southern Europe.
<i>Robinia pseudo-acacia</i> (D) ..	..	Black locust or false acacia ..	Pennsylvania Mountains.
<i>Salix Caprea</i> (D) ..	..	Goat willow	Europe (Britain).
" <i>viminalis</i> (D) ..	<i>Salix longifolia</i> ..	Common osier	"
" <i>vitellina</i> (D) ..	..	Golden osier	Britain.
<i>Sequoia sempervirens</i> (E) ..	<i>Taxodium sempervirens</i>	Redwood	California.
<i>Sophora tetraptera</i> (E) or (D)	<i>Edwardsia microphylla</i>	Kowhai	New Zealand.
<i>Vitex lucens</i> (E)	Puriri	North New Zealand.

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1909.
NEW ZEALAND.

INSPECTION OF COAL-MINES REPORT.

(“THE COAL-MINES ACT, 1908.”)

Presented to both Houses of the General Assembly by Command of His Excellency.

MR. FRANK REED, M.I.M.M., Inspecting Engineer, to the UNDER-SECRETARY, Mines Department.

SIR,—

Mines Department, Wellington, 15th April, 1909.

I have the honour to present the annual reports of inspection, together with statistical information in regard to the coal-mines of the Dominion for the year ended 31st December, 1908.

The reports are divided into the following sections :—

- I. Output of Mineral.
- II. Persons employed.
- III. Accidents.
- IV. General Remarks.

Annexures—

- (a.) Inspectors' Reports.
- (b.) Mine-managers' Examinations, and Certificate-holders.
- (c.) Statistics of Working-collieries.

SECTION I.—OUTPUT OF MINERAL.

The output of the several classes of coal mined in each inspection district is summarised as follows:—

Class of Coal, &c.	Northern District.	West Coast District.	Southern District.	Total.
	Tons.	Tons.	Tons.	Tons.
Bituminous and semi-bituminous coal ...	147,405	1,057,807	...	1,205,212
Pitch-coal ... ..	...	2,801	14,658	17,459
Brown coal... ..	197,522	2,958	338,661	539,141
Lignite ... ..	...	...	99,163	99,163
Totals...	344,927	1,063,566	452,482	1,860,975

As compared with the output for the preceding year, the above statement shows an increase of 29,966 tons.

The following statement shows the production, &c., of the principal collieries:—

Name of Colliery.	Locality.	Class of Coal.	Output for 1908.	Total Output to 31st December, 1908.	Total Number of Persons ordinarily employed.
<i>Northern District.</i>					
Hikurangi Coal Company (Limited)...	Hikurangi...	Semi-bituminous	Tons. 61,071	Tons. 581,593	74
Taupiri Coal-mines (Limited) ...	Huntly ...	Brown ...	175,777	1,900,362	357
Northern Collieries Company (Limited)	Hikurangi...	Semi-bituminous	50,275	284,246	74
<i>West Coast District.</i>					
Westport Coal Company (Limited) (Coalbrookdale Collieries)	Westport	Millerton, bituminous	316,601	2,651,061	473
		Denniston...	296,617	5,026,377	574
New Zealand State Coal-mines	Seddonville (Westport)	Bituminous	55,231	209,410	100
	Point Elizabeth (Grey-mouth)	"	234,250	795,458	400
Blackball Coal Company (Limited) ...	Blackball...	"	85,348	1,026,555	150
Tyneside Proprietary Coal Company (Limited)	Brunnerton	"	40,304	295,059	160
<i>Southern District.</i>					
New Zealand Coal and Oil Company (Limited)	Kaitangata	Brown ...	110,315	2,312,680	296
Nightcaps Coal Company (Limited) ...	Nightcaps...	" ...	48,487	616,263	92
Other collieries, in all districts ...	...	Various ...	386,699	11,423,875	1,144
Totals ... ..	...	...	1,860,975	27,122,939	3,894

The most important feature in connection with the coal-mining industry has been the activity displayed on the West Coast bituminous coalfields, where new collieries are being opened and equipped on a scale of considerable magnitude. The quality of the coal from these fields is of a high class, the coal being used by the Admiralty and to a considerable extent by ocean-going vessels. On the northern coalfields activity has also been displayed in the development of new areas, and the acquisition by the principal companies of mining rights over freehold property. The equipment of the mines all over the country has been greatly improved.

SECTION II.—PERSONS EMPLOYED.

Inspection District.	Average Number of Persons employed during 1908.		
	Above Ground.	Below Ground.	Total.
Northern	122	512	634
West Coast	562	1,646	2,208
Southern	308	744	1,052
Totals, 1908	992*	2,902	3,894*
Totals, 1907	1,143	2,767	3,910

* The decline in the number of persons employed is confined to those employed above ground, and this is due to the completion of extensive surface works on the West Coast coalfields.

SECTION III.—ACCIDENTS.

In 1908 four separate fatal accidents occurred in and about the coal-mines of this Dominion, causing the loss of five lives. Compared with the previous year, there is a decrease of six in the number of fatal accidents, and of seven in the number of lives lost. The actual number of deaths by itself does not afford a complete test of the comparative safety or danger of the coal-mining industry in 1908. True comparisons can only be made by taking into account either the number of persons employed or the quantity of mineral obtained.³ The following summary of the annual ratio of persons killed per 1,000 employed in the collieries of the most important countries of the world during the last ten years, regarding which official statistics have been published, will permit of that comparison by which the safety or danger of the coal-mines in this Dominion may be tested.

Country.	Annual Ratio of Persons killed per 1,000 employed.	Years.
United Kingdom	1.29	1897-1906 (ten years).
United States of America, and Canada	3.33	1898-1907 "
Prussia (bituminous-coal mines)	2.13	1897-1906 "
" (brown-coal mines)	2.07	" "
Austria (bituminous-coal mines)	1.03	" "
" (brown-coal mines)	1.74	" "
France	1.81	" "
Belgium	1.06	" "
India	0.86	1898-1906 (nine years).
Natal	4.91	1897-1906 (ten years).
New South Wales	2.14	" "
Queensland	1.20	" "
Victoria	2.28	" "
New Zealand	1.56	1899-1908 "

It will be seen that New Zealand occupies the sixth place as regards the safety of the coal-miner, among fourteen coal-producing countries.

The following is a summary of fatal and non-fatal accidents classified, and cause, in this Dominion during 1908.

	Fatal Accidents.		Non-fatal Accidents.	
	Number of Separate Fatal Accidents.	Number of Deaths.	Number of Separate Non-fatal Accidents.	Number of Persons injured, including those injured by Accidents which proved Fatal to their Companions.
Explosions of firedamp ... ..	...	...	1	3
Falls in mine	3	4	6	7
Shaft accidents ... ..	...	...	...	...
Miscellaneous—Underground... ..	...	...	15	15
On surface	1	1	1	1
Totals	4	5	23	26

Lives lost per 1,000 persons employed, 1.28.

The following statement shows the tons of mineral raised (coal and shale), persons employed, lives lost, &c., from 1878 to 1908 :—

Year.	Output of Mineral.	Persons employed.			Tons of Mineral raised per each Person employed Underground.	Tons of Mineral raised per Life lost.	Persons employed per each Life lost.	Lives lost per Thousand Persons employed.	Number of Deaths.
		Above.	Below.	Total.					
Prior ...	709,931	...	...	...	...	...	...	...	...
1878 ...	162,218	147	366	513	443	4,771	15	66·27	34†
1879 ...	231,218	...	...	802	...	115,609	401	2·49	2
1880 ...	299,923	...	...	1,038	...	149,961	519	1·92	2
1881 ...	337,262	...	...	963	...	337,262	963	1·04	1
1882 ...	378,272	...	...	1,043	...	189,136	521	1·91	2
1883 ...	421,764	361	888	1,249	475	210,882	624	1·60	2
1884 ...	480,831	393	890	1,283	540	160,277	421	2·34	3
1885 ...	511,063	338	1,145	1,483	456	170,354	494	2·01	3
1886 ...	534,353	392	1,213	1,605	440	*	*	*	0
1887 ...	558,620	388	1,111	1,499	503	139,655	375	2·66	4
1888 ...	613,895	414	1,275	1,689	481	153,474	422	2·36	4
1889 ...	586,445	466	1,251	1,717	261	146,611	313	2·37	4
1890 ...	637,397	512	1,334	1,846	477	79,674	231	4·33	8
1891 ...	668,794	416	1,277	1,693	523	167,198	423	2·36	4
1892 ...	673,315	485	1,196	1,681	563	673,315	1,681	0·66	1
1893 ...	691,548	590	1,298	1,888	533	138,309	377	2·64	5
1894 ...	719,546	506	1,393	1,899	516	119,924	316	3·16	6
1895 ...	726,654	525	1,274	1,799	618	145,331	360	3·33	5
1896 ...	792,851	590	1,347	1,937	588	12,013	29	34·07	66‡
1897 ...	840,713	531	1,381	1,912	609	210,178	478	2·09	4
1898 ...	907,033	556	1,447	2,003	627	907,033	2,003	0·49	1
1899 ...	975,234	554	1,599	2,153	609	325,078	717	1·39	3
1900 ...	1,093,990	617	1,843	2,460	593	273,497	615	1·62	4
1901 ...	1,239,686	688	2,066	2,754	600	413,228	918	1·09	3
1902 ...	1,365,040	803	2,082	2,885	655	682,520	1,443	0·69	2
1903 ...	1,420,229	717	2,135	2,852	665	355,057	713	1·40	4
1904 ...	1,537,838	763	2,525	3,288	609	384,459	822	1·21	4
1905 ...	1,585,756	833	2,436	3,269	651	264,293	546	1·83	6
1906 ...	1,729,536	1,174	2,518	3,692	687	288,256	615	1·62	6
1907 ...	1,831,009	1,143	2,767	3,910	662	152,584	326	3·07	12
1908 ...	1,860,975	992	2,902	3,894	641	372,195	778	1·28	5
Totals ...	27,122,939	...	...	...	...	...	...	...	210

* No life lost.

† Year of Kaitangata explosion.

‡ Year of Brunner explosion.

SECTION IV.—GENERAL REMARKS.

MINING OPERATIONS.

Northern Inspection District.—An increase of 27,950 tons in the annual output of coal from the mines of the Auckland Province has to be recorded.

The original property of the Hikurangi Coal Company (Limited) being nearly worked out, this company have acquired an area south-west of the Township of Hikurangi, and have proved thereon by boreholes at depths varying between 200 ft. and 500 ft., the existence of a 10 ft. seam, which will in all probability give a new lease of life to this company. During the year the respected manager of this colliery, Mr. Moody—who for a period exceeding a quarter of a century has occupied a prominent position on the northern coalfields—retired from the management of the Hikurangi Company.

At the Northern Colliery some difficulty has been experienced by subsidence, owing to pillar-extraction in proximity to the air-shaft and airways, but ventilation will be restored and a considerable area to the dip of the present workings will be opened up by a new airway, which is now being driven to overcome the difficulty.

Mining operations at the Kiripaka Colliery have been confined to the solid coal, this mine being still in the early stages of development. An extensive coal-bearing area has been proved by boring on this property.

The output of the Taupiri Coal-mines (Limited) for the year amounted to 175,777 tons, being an increase of 13,731 tons; the output from this property now exceeds that of all the other North Island collieries combined. This company have, by the acquisition of the Taupiri West Com-

pany's property and of the mineral rights over private property, now secured a compact area exceeding 15,000 acres, covering the most accessible portion of the important Waikato Coalfield, which is traversed by the Main Trunk Railway and by the navigable River Waikato. Upon the completion of the purchase of the Taupiri West property, headings were at once commenced for the purpose of making an underground connection with the Taupiri Company's mine. These headings when completed will thus provide an outlet by means of the Taupiri West shaft on the western side of the river, in which locality the principal operations of the Taupiri company are now directed. The consideration of the mine-owners is now being directed to the advisability of bridging the Waikato and to sinking a new shaft to the dip of the present workings.

Recent explorations on the Waikato Coalfield, the most extensive and unbroken of the known workable coalfields of this Dominion, have proved its extension to the southward of the Akatea Village Settlement, a distance of about thirteen miles from the northern boundary of the Taupiri Company's property on the same coalfield. An area of at least 25,600 acres of the Waikato Coalfield has been practically proved to be coal-bearing. The quality of the coal exposed by many outcrops, the thickness of the seam, and other characteristics, prove that the thick seam, as worked at the Taupiri mine, extends over a very large area which is almost entirely freehold grazing property.

West Coast Inspection District.—The Puponga Company have improved their equipment by the installation of coal-cutters actuated by compressed air; and underground developments are being pushed ahead.

On the Buller Coalfield, the most productive in the Dominion, the Westport-Stockton Mine commenced active operations towards the latter part of the year, and mining has since been carried out by double shifts on a section off the B inclined haulage-tunnel (in coal) by the bord-and-pillar system of working. It is reported that the extensive electrical installation at this colliery is giving every satisfaction, and that the ventilation of the mine is well attended to. At the Millerton Colliery, the property of the Westport Coal Company (Limited), the equipment and development of the Mangatini section has been the most important work undertaken during the year. Upon this section it is proposed to instal coal-cutting machinery and employ an electrically driven "Sirocco" fan. The most important developments at the Denniston Colliery, the property of the same company, comprise the opening-up of the Waratea section by a main stone drive of considerable length. In other sections of this mine the solid work is kept well ahead of pillar-extraction, and the proportion of coal extracted is much greater than formerly. On the Grey Coalfield a strike at the Blackball Colliery extending over a period of eleven weeks acted detrimentally to the annual output, which, if this had not occurred, would, at the rate of production during the remaining part of the year, have shown an increase over former years. This company is improving its surface arrangements by the erection of storage-bins of 2,500 tons capacity, which are connected to modern screening and conveying equipment erected in convenient proximity to the Ngahere-Blackball Railway, now nearing completion. For the purpose of combating underground fires, if such appear, this mine is worked on the panel system, which permits immediate isolation of an affected area.

The extensive surface arrangements of the Paparoa Coal-mining Company (Limited), are nearing completion. The rock tunnels and viaduct on the main haulage-inclines are already completed, and a single-inlet "Sirocco" fan of 105 in. diameter (which it is estimated will produce 110,000 cubic feet of air per minute) has been installed. This mine will enter the list of productive collieries during the year.

The property known as Thornton's Lease, containing 1,640 acres, to the eastward of the old Brunner Mine, has been acquired by the North Brunner Coal Company (Limited), who, after a considerable amount of prospecting, have decided to lay down a colliery. A bridge across the River Grey, and a line of endless-rope haulage about 67 chains in length, will be necessary to connect the mine with the Government railway at Stillwater Junction, distant nine miles from the Port of Greymouth.

The Tyneside Colliery was irrecoverably flooded out on the 8th May by the River Grey, and surface flood-water entering the mine by old workings and broken strata, and the pumps being incapable of dealing with the influx of water, the workings became inundated. The pillar-extraction at this mine was within a few months of completion, so the loss of the mine has not been a very serious matter, as there was plenty of other work for the forty miners engaged at the mine prior to inundation.

Southern Mining District.—The underground developments at the Kaitangata Colliery, in the section to the eastward of the No. 7 fault, have proved an extensive area containing three seams—viz., the main 18 ft. and 6 ft. seams; but of these the former only is at present being worked, it being adequate for existing requirements. The panel system is now employed at this mine for the purpose of isolating any underground fires which may occur, and all dross is filled into trucks and removed from the mine as an extra precaution against spontaneous fires. As firedamp is occasionally reported as occurring at the coal-faces, and accidents therefrom have happened, safety-lamps only are permitted in this mine, these lamps being first tested with compressed air and then locked before being permitted to enter the mine. At the same company's adjoining Castle Hill Colliery similar precautions are taken.

At the Nightcaps Colliery the boundaries of the property having been reached by solid work on the bord-and-pillar system, the extraction of pillars is being carried out by working from the boundary homeward, and it is stated that a high proportion of extraction amounting to 85 per cent. has been attained. The area in which the fire occurred during 1907 is reported to be sealed up by stoppings. A considerable proportion of the output of this mine is obtained by opencast or quarrying; the seam being of considerable thickness. During the year Mr. John Lloyd, who for over twenty years has occupied the position of certificated manager of this mine, relinquished the same owing to indisposition.

EQUIPMENT OF COLLIERIES.

Coal-mining operations in New Zealand have been considerably facilitated by the hilly character of the country and the comparative shallowness of the coal-seams, which conditions have permitted the majority of the mines to be worked from the outcrop by means of adits or inclined planes, usually level-free, thus avoiding the use of winding and pumping machinery, and in many instances of hauling-engines also, and permitting small mines, with a comparatively insignificant output, to be profitably worked. At only four mines is the coal raised by steam-power from shafts—viz., at Taupiri and Taupiri West, and at two small pits in Otago; at the remaining 160 mines haulage-planes and adits are adopted.

The haulage systems at the chief collieries on the Buller and Grey Coalfields are of considerable magnitude, even when compared with those in Europe and America, and are therefore of more than passing interest. These mines being situated on the coastal ranges at considerable altitudes above sea-level it is necessary to lower the coal by means of surface tramways worked by various systems of haulage. The following summary of the principal features of the most important inclines connecting the mines with the Government railways will serve to show the magnitude of the outside haulage-systems:—

Name of Colliery.	Section of Incline.	Horizontal Length.	Maximum Gradient.	Vertical Height.	General.
Denniston	Upper	M. ch. 0 33	1 in 3·3	Ft. 834	Single railway-wagons of 6½ tons capacity are lowered on a 3 ft. 6 in. gauge at the rate of 15 wagons per hour.
"	Lower	0 50	1 in 1·2	864	
Millerton	Upper	0 70	...	1,660	Tubs of 22 cub. ft. capacity are lowered by self-acting endless-rope tramway of 24 in. gauge at a speed of 2½ miles per hour.
"	Lower	0 51	...		
			Average Gradient.		
Westport-Stockton	Top	2 20	1 in 21·2	2,376	Electric traction by 20-ton locomotives on top section. From thence tubs of 30 cwt. capacity are lowered on endless-rope tramway of 3 ft. gauge. Maximum gradient for rope haulage, 1 in 3. The lower section is worked by the "main and tail rope" system.
"	Intermediate	0 39	1 in 6·7		
"	"	0 33	1 in 4		
"	Lower	0 28	1 in 63		
Paparoa	Upper	0 52	1 in 12	255	Coal-tubs lowered by endless-rope self-acting tramway.
"	Lower	0 44	1 in 3	850	

Hydraulic brakes are in general use for the purpose of regulating the speed on all the self-acting rope-haulage inclines. The pulleys or drums at the top of each haulage section are fitted with cranks keyed on to the ends of the shafts, which are attached by connecting-rods to the pistons of three water-cylinders fitted with cataraet governors, the water in the cylinders checking or arresting the motion of the pistons at the will of the brakesman. These brakes, which were introduced by the late Mr. R. B. Denniston early in the eighties, are far more effective and reliable, and are less destructive to the haulage-ropes, than ordinary friction-brakes.

Great improvements have recently been effected in the mechanical ventilation of the mines, for, whereas in 1891 only three ventilating fans were employed, during 1908 twenty-two had been installed, the fans most favoured being of the "Sirocco," Waddle, and Hayes types.

Multivane turbine fans of the "Sirocco" type having recently been installed at the collieries of the Westport, Paparoa, and Taupiri Companies and at the State collieries in this Dominion, a reference to the special features of this type of ventilator may be of interest. Until recent years it was the general opinion of mining engineers that the fans required for ventilation must necessarily be of large diameters. When, however, the turbine or multivane mine-fan was invented, it became very evident that this opinion needed considerable modification, and it became still more obvious when the results obtained with these fans under actual working-conditions were made public.

The very first installation where the "Sirocco" multivane fan (see drawings) was used bore out the makers' claims, a 75-in.-diameter fan of the double-inlet type not only doing the work of two other fans whose aggregate diameters amounted to 10½ times that of the "Sirocco," but even delivering a 12-per-cent. larger volume of air. This was only the first of many similar instances. At another mine in Great Britain a 77-in.-diameter "Sirocco" is replacing a fan measuring 44 ft. in diameter, while many others of less than 100 in. are being installed in place of fans of the old type measuring 30 ft. to 40 ft.

Interesting though this question of reduced diameter undoubtedly is from the mechanical standpoint, it would be of little value if it could not show some advantageous features when considered also from a commercial aspect. The chief advantage of fans of small diameter lies in the fact that they can be run at comparatively high speeds, making it possible to couple them directly to motors or engines which develop the required power at a high speed of rotation.

The first cost of the motor or engine is consequently very much lower than is the case of a slow-running fan, which often could not be direct-coupled, owing to slow speed necessitating the use of a large-size motor or engine with the proportionate increase of cost.

The reduced dimensions of the high-speed fans lead to a very marked economy in the cost of erection, owing to the small amount of brickwork and masonry necessary to provide their housing, and this fact is clearly evidenced when taking the actual space occupied by the fan-wheels into con-

sideration. Thus, taking an actual installation as an example where a wheel occupying a space of 325 cub. ft. is replacing another occupying 15,000 cub. ft., it is obvious that the amount of brickwork required to enclose the former is very much less than that needed by the latter. An additional saving is frequently effected in the reduced size of the engine and motor house, due to the use of a high-speed in place of a low-speed, and consequently larger-dimensioned, machine.

Although the "Sirocco" multivane fans are small in diameter, they are capable of fulfilling large duties, as is borne out by a number of installations. As instances may be noted a double-inlet fan 119 in. in diameter, which is capable of passing 300,000 cub. ft. per minute at 3 in. water gauge, while another measuring 140 in. can deliver 375,000 cub. ft. per minute at 4 in. water gauge. Furthermore, one of these fans is now in course of construction in Great Britain, which will have an output of half a million cubic feet at 6 in. water gauge, and will be direct-coupled to a motor of 1,000-horse power.

It has been sometimes argued that the slow-speed fans of large diameters show far better efficiencies than the smaller high-speed fans. This, however, cannot be the case, considering that a turbine fan is able to give an efficiency of more than 70 per cent. when tested under actual working-conditions in mines.

The change that has been brought about in mine-ventilation by the introduction of the multivane fan not only counts for economy, it counts also for increased safety and efficiency.

The application of electricity is now becoming general at the more up-to-date of the collieries; the Westport-Stockton Mine, recently opened, having installed a complete (three-phase) plant for coal-cutting, ventilation, electric traction, and lighting. The Point Elizabeth State No. 2 Colliery will also utilise this power somewhat extensively, and the Westport Coal Company propose to instal the power for ventilation and perhaps coal-cutters also.

COAL-SHIPPING PORTS.

Westport.

The following official statement for the year 1908, furnished by the Secretary to the Westport Harbour, will serve to illustrate the progress of this the chief coal-shipping port of the Dominion:—

Coal-output for year 1908:—

Westport Coal Company (Limited)	..	..	..	613,216 tons coal.
Seddonville State Coal-mine	..	..	..	42,550 „ „
„ „	..	..	..	11,570 „ briquettes.
Westport-Stockton Coal Company (Limited)	..	..	..	2,930 „ coal.
Total	..	..	..	670,266 tons.

The coal-output for 1908 was 16,337 tons more than in the year 1907, and the output of briquettes from the State Coal-mine was 8,781 tons more in 1908 than in 1907, the total increase for the year 1908 over 1907 being 25,118 tons.

The volume of shipping for the year 1908 was as follows:—

				Steamers.	Sailers.	Registered Tonnage.
Inwards	..	..	..	1,115	18	591,714
Outwards	..	..	..	1,113	18	591,366
Total	..	..	..	..	..	1,183,080

The port is now capable of easily dealing with shipments of coal up to 26,000 tons per week.

Our coal-export has very gradually and systematically grown, as shown below:—

				Yearly Output. Tons.				Yearly Output. Tons.
1885	..	..	..	78,094	1900	..	..	379,917
1890	..	..	..	160,214	1905	..	..	547,280
1895	..	..	..	222,928	1908	..	..	670,266

The Harbour Board's revenue for the year 1908 amounted to £85,970 13s.

The average depths of water on bar and in river-fairway at high water for the year 1908 were as follows: Bar, 22 ft. 7 in.; river-fairway, 23 ft. 4 in. The depths of water on bar during the year 1908 as recorded were—18 ft. to 20 ft., 12 days; 20 ft. to 22 ft., 110 days; 22 ft. to 24 ft., 172 days; 24 ft. to 26 ft., 72 days.

The rainfall for the year 1908 was 73.63 in.

Greymouth.

The following are the official returns from the Port of Greymouth, from whence is shipped the product of the Grey Coalfield. A small increase in the registered tonnage of the vessels entering the port is recorded.

Average depth of water on the bar at high water, 21 ft. 7 in.; average depth of water in river at high water, 19 ft. 8 in.

Number of days bar was navigable, 343.

Tonnage of vessels entering port: 686 steamers, 338,820 tons register; 41 sailing-vessels, 8,652 tons register: total, 347,472 tons register.

Exports: Timber, 50,531,029 sup. ft.; coal, 329,107 tons; bricks, 1,150 tons; coke, 2,344 tons; flax, 1,058 bales; wool, 767 bales; gold, 72,926 oz.

Berthage accommodation, 2,770 ft. A tidal dock in Kororo Lagoon, giving an additional berthage accommodation of 2,000 ft., is now being constructed, 700 ft. having been completed.

I have, &c.,

FRANK REED,

Inspecting Engineer and Inspector of Mines.

ANNEXURE A.

REPORTS OF INSPECTORS OF MINES.

Mr. BOYD BENNIE, Inspector of Mines, Thames, to the UNDER-SECRETARY, Mines Department.

SIR,—

Inspector of Mines' Office, Thames, 27th February, 1909.

In compliance with section 78 of "The Coal-mines Act, 1908," I have the honour to report on the coal-mines in the Northern District for the year ended 31st December, 1908.

Kawakawa Mine (Samuel Neill, mine-manager).—Operations have been confined to the outcrop section of the property, formerly worked by the Bay of Islands Coal Company. Some pillars have been located and extracted; but the result has been disappointing, and not as remunerative as was expected. The quality of the coal is constantly deteriorating, owing to atmospheric influences. Late in the year attention was directed to what is known as Moody's outcrops, and some large pillars were located; but, owing to the necessity of relaying rails and repairing the old line, it is doubtful whether the place can be profitably worked. I inspected the operations during the year, and found that the work was being carefully carried out. The output for the year was 980 tons of coal. It is to be regretted that no company has been found to undertake the systematic prospecting of the Kawakawa property to the south-west section, and also the prospecting of the land extending along the Hikurangi-Kawakawa Railway route, where the prospects are favourable.

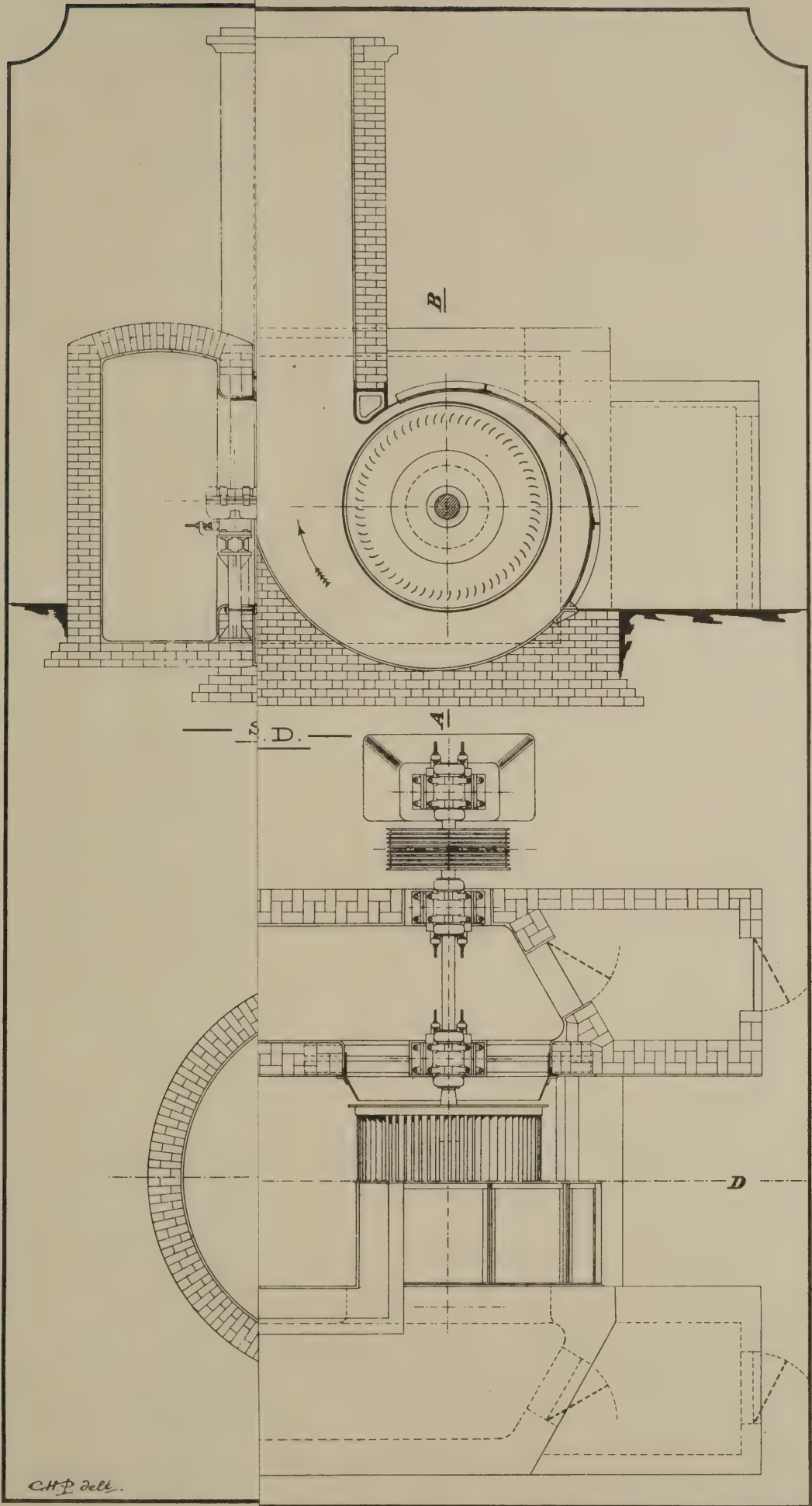
Kitinikau Syndicate.—Early in the year this syndicate acquired the old Whau mining property, and commenced prospecting on the outcrop of the coal-seam in the vicinity of the old colliery. Several prospecting drives were put in, and the coal was discovered to be both deteriorated and thin. It is stated that there is yet a large area of coal unworked lying between the mine and the old Kamo Mines. To work the property profitably it should be opened up from the Kamo end, where the coal is some depth below the surface. The mine-workings were examined, and found to be in good order. Five hundred tons of coal was mined for the year. Two men were employed.

Hikurangi Coal Company (Limited) (W. R. Dunn, manager).—Mining operations have principally consisted of the extraction of pillar-coal in the eastern section. The pillar-coal on the western side of the Government railway, and underlying the limestone rocks, is now exhausted. To prevent the flooding of this section a strong dam has been made in the drive through the railway pillar. East of the railway pillar there is yet some good coal to be got, and it is here that operations are being conducted. The new area, west of the railway, referred to in last annual report, has been opened up well, and at least half the number of the company's men are employed here. It is estimated that there are approximately 60,000 tons of coal that can be extracted from the pillars. The company has also acquired what appears to be a valuable property south-west of the Hikurangi Township and close to the railway. Boreholes were put down to a depth of from 200 ft. to 500 ft., and a seam 10 ft. thick discovered. This is an important discovery, as it proves the coalfield to be more extensive than was at first supposed. I inspected the mine twice during the year, and found everything satisfactory. The company's output for the year was 61,071 tons of coal; and dividends amounted to £1,875 (including a bonus of £750). Seventy-four men were employed.

Northern Coal Company (Limited) (William Morgan, manager).—From the north side of the main adit level coal was won from bords in the solid, and also from pillars. To the south side of the main level the work was confined to extracting pillar-coal. Great care should be exercised in this undertaking, otherwise a large quantity of coal will be lost. Through a subsidence among the pillars, the air-shaft and airways were interrupted, and at the time of my visit the ventilation was poor. The manager is taking active measures to restore ventilation by opening up the airways. A new tunnel is being driven north of the present drive, and this will open up some coal to the dip of the present workings, as well as provide for drainage and the material improvement of ventilation. The prospects disclosed in this section are very encouraging. The output for the year reached 50,275 tons of coal, being an increase of 1,727 tons over the previous year. £3,000 was paid in dividends, and seventy-four men employed.

Kiripaka Mine (Northern Coal Company, owners; E. W. Tattley, mine-manager).—Operations have been confined to the sections north and south of the main dip haulage-way. The mine is just opening out, consequently no pillar-coal has yet been worked. The main dip has not been extended for the year, there being sufficient coal for present requirements. The coal is of a hard nature, and requires much blasting. In the workings north and south of the main dip the coal-seam has thinned considerably. This is characteristic of the northern coalfields. As previously stated, the property has been well prospected by surface boreholes. The output for the year was 34,579 tons of coal, being an increase of 2,000 tons over last year. In addition to this, 2,887 tons of fireclay was mined. Sixty-eight men were employed.

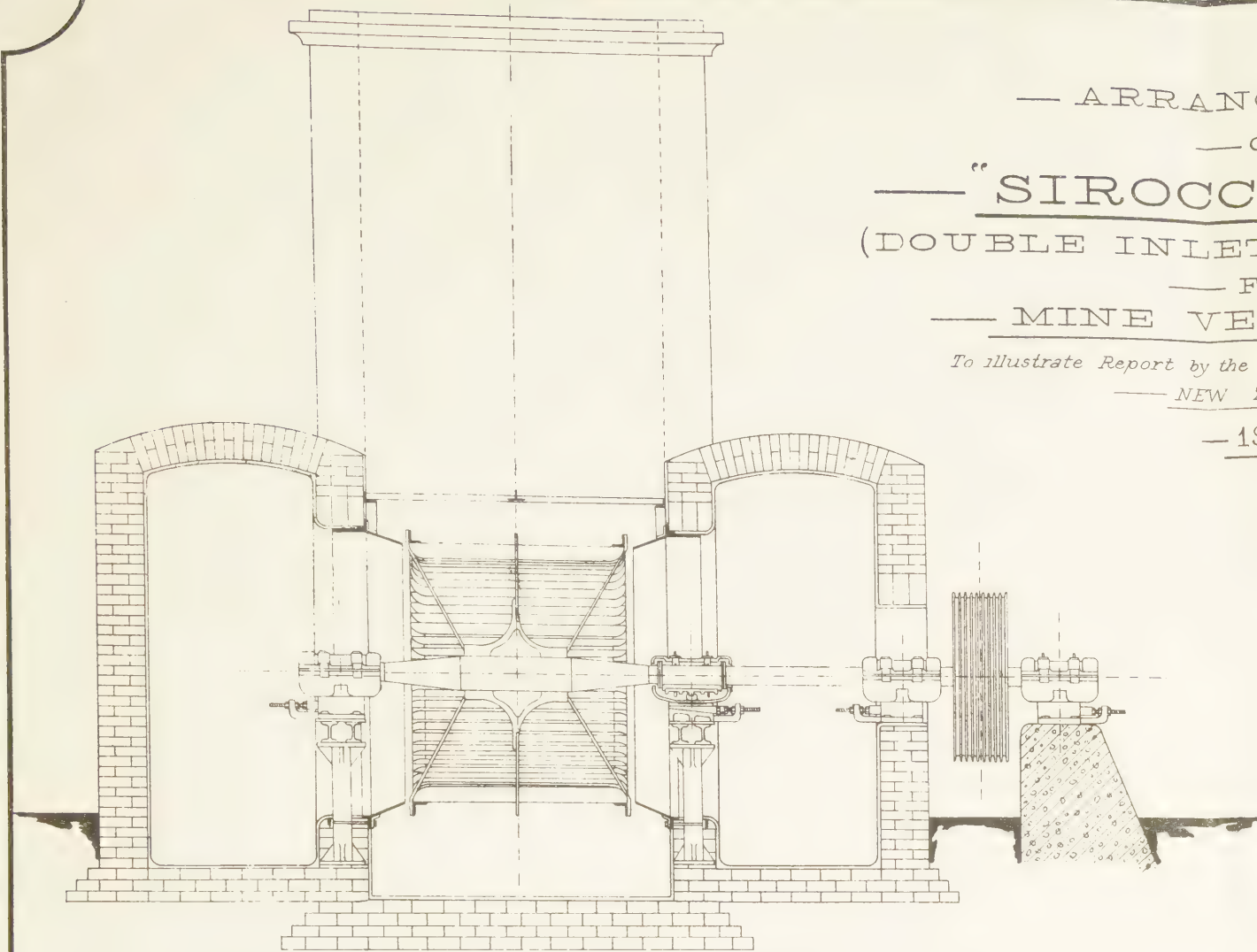
Taupiri Coal-mines (Limited), Ralph's Section (E. S. Wight, manager).—During the year the company purchased the Taupiri West Company's property, which adjoins their western area. A pair of headings was at once started from the main south-west dip haulage-road with a view to connecting with the Taupiri West shaft. Such a connection is highly desirable, as it will provide an outlet on the western side of the Waikato River for use in case of emergency. This connection cannot, however,



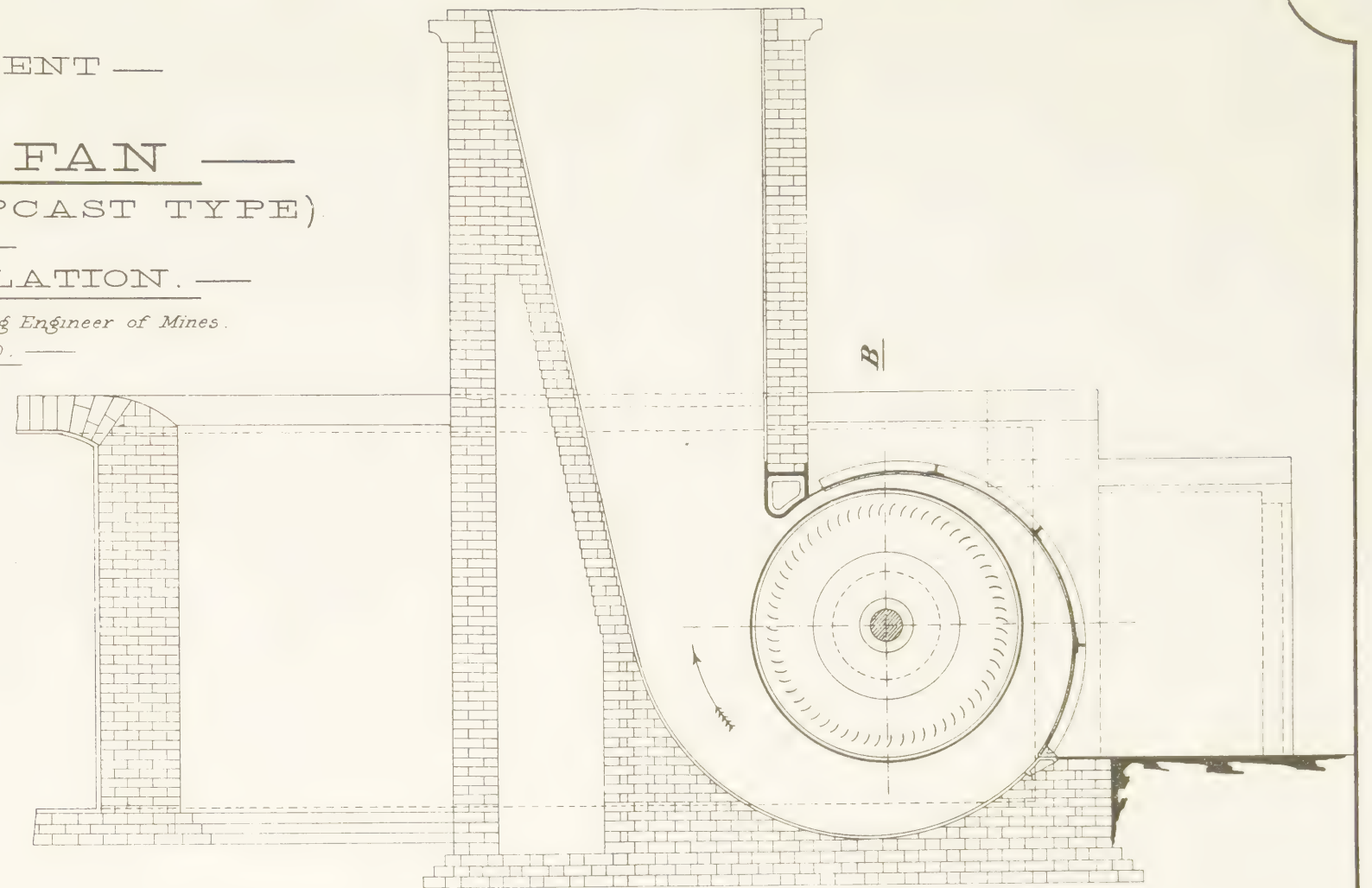
— ARRANGEMENT —
 — OF —
 — "SIROCCO" FAN —
 (DOUBLE INLET, UPCAST TYPE)
 — FOR —
 — MINE VENTILATION. —

To illustrate Report by the Inspecting Engineer of Mines.
 — NEW ZEALAND. —

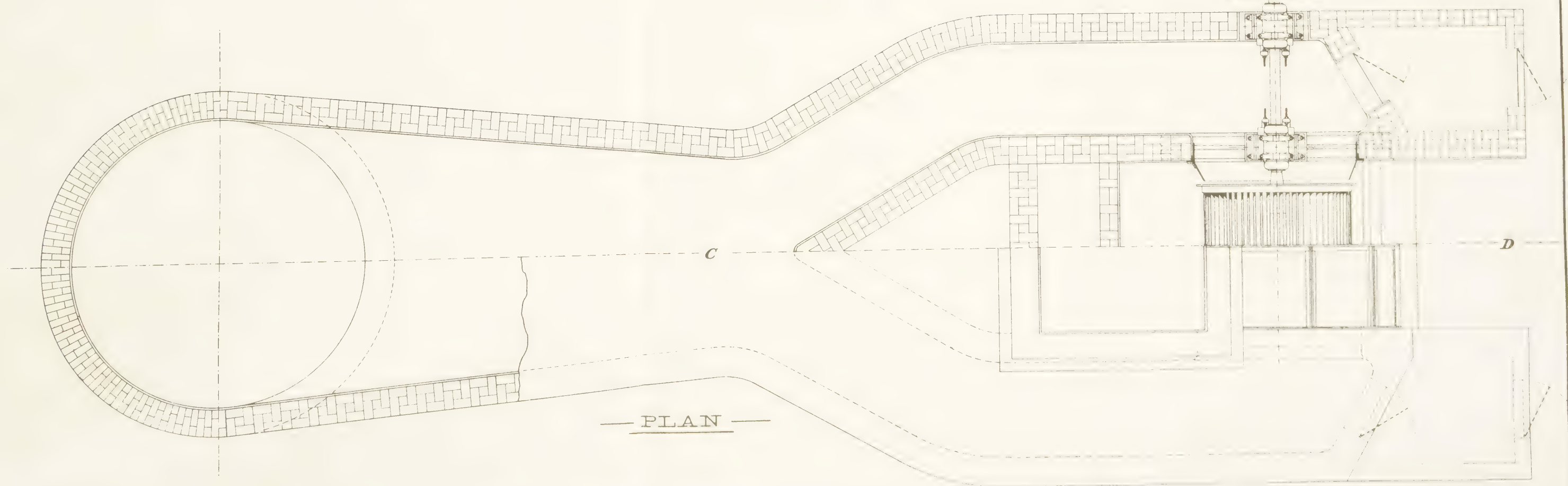
— 1909. —



— SECTION ON LINE A.B. —



— SECTION ON LINE C.D. —



— PLAN —

be effected for probably two years, owing to the distance that has to be driven, and to other causes consequent on the anticlinal formation of the floor of the coal-seam. A series of boreholes is being put down from the surface to ascertain the depth of the floor of the coal-seam so that headings can be driven to a uniform grade, as they will be used later on as haulage-roads. I have made several visits to the mine, and found the working-places in good order, and the mine ventilated. I examined the damaged pillar area in the old workings under the river, and believe no additional damage has resulted in the last year. Nothing has been done in the direction of strengthening these pillars. At the close of the year the manager reported that a creep had set in among the pillars in the No. 3 south-west section of the mine. The area is free from water overlying the coal, and steps were immediately taken to close off the area to prevent a mine-fire which might take place as the result of coal-crushing. The output for the year amounted to 91,771 tons of coal. One hundred and seventy-two men were employed.

The Extended section (William Wood, manager): Considerable improvements have taken place in this section. Electric light has been installed around the pit-bottom and along the haulage-way. The main haulage system has been extended in the west and north-west districts, which will give increased facilities for the coal-extraction. In the west heading a fault downthrow was met with, through which a stone drift is being driven to reach the displaced coal-seam. The drift will be 12 chains long. Some improvements are being made in the mine-drainage. This section has been examined from time to time, and found in good order. The output for the year was 77,462 tons of coal, and 173 men were employed.

Taupiri Reserve section (William Wood, manager): Owing to the difficulty in disposing of the coal mined, only a limited number of men are employed. The quality of coal is inferior to that of the coal obtained in the other sections of the company's property. The mine was inspected during the year, and found to be in good order. Twelve men were employed.

Taupiri South (William Leather, manager).—This is an old colliery with an eventful history. Coal was mined years ago, but owing to carelessness in leaving small coal in the mine, the pillars took fire and the mine had to be abandoned temporarily until it was thought that the fire had burnt itself out. About the beginning of the year the manager attempted to reopen the mine, and after spending a considerable amount of money had to relinquish operations, as the fire still burnt. Later a fresh entry was made, leaving the fire district to the left, and it is believed that a large quantity of coal will be won from the section. I examined the mine on several occasions, and found it in good order. The output for the year was 200 tons. From two to six men were employed.

Taupiri West (R. McEwen, manager).—Very little work has been done on this property. Early in the year negotiations were proceeding between the company and the Taupiri Company for the purchase of the property, which was effected about the middle of the year. It is the intention of the new owners to work the coal by driving a main haulage-tunnel from Ralph's section to the Taupiri West shaft. Ninety-one tons of coal was mined, and two men employed.

Union Collieries Mine (F. J. Tattley, manager).—The old section has been worked out, and the main dip driven a further distance of 250 ft., where new work is now being opened out. From this point a drive is being driven to connect with a shaft sunk by a former company. This shaft is lined with brickwork, and is in good order. When this connection is effected there should be an improvement in the ventilation, which has not been all that could be desired. Early in the year a serious accident occurred at the mine, resulting in the loss of two lives. The mine was inspected several times during the year, and everything with the exception of the ventilation appeared satisfactory. The output for the year totalled 14,876 tons, being an increase of 4,488 tons over the previous year. Twenty-seven men were employed.

Ngaruawahia Colliery (J. Duncan, manager).—This is a new property, situated about six miles west of Ngaruawahia on the road to Raglan. The coal-seam was found outcropping in a small stream, and an examination revealed that the seam was 11 ft. thick, and in appearance similar to the Taupiri coal. The coal is bright and hard. As there are no waters overlying, a mine, if developed, would be practically free from water, which will permit of the pillar-coal being extracted. The greatest drawback to this company is the lack of sufficient capital to undertake the construction of a railway from the mine to the Government line at Ngaruawahia. I inspected the mine early in the year. Only two men were employed for a few months.

Drury Colliery (James Holden, manager).—This mine is worked principally for the fireclay, which is utilised in the manufacture of bricks, pottery, &c. Extensive additions were made to the brick and pipe works, where some very fine fireclay goods are made. The coalfield is much faulted and broken. About half a mile from the works a borehole was put down 800 ft. to prove the existence of a coal-seam to the dip of the present workings, but the country passed through was mostly fireclay, and no trace of coal was found. Five hundred and eighty-nine tons of coal and 1,470 tons of fireclay were mined for the year. The mine was inspected on several occasions, and found to be in good order. Five men were employed.

Mangapapa Mine (Mokau) (William Lennox, manager).—The Mokau coalfield is but little faulted and very extensive. The rocks overlying the coal are sandstone and limestone, which is a great advantage, as but little timbering is required. The great obstacle which the company has had to contend with in the past is the uncertainty of communication with the outside world. The township is situated in an isolated locality, and the only means of transit for the coal is by way of the river. The boats used for conveying the coal are subject to frequent interruption owing to the shallowness of the river, and often the service is suspended owing to the periodical stormy weather. The output for the year was 5,989 tons. The mine was inspected during the year, and excepting the ventilation, everything gave complete satisfaction.

Accidents.

The following is a summary of fatal and non-fatal accidents during 1908 on the northern coalfields :—

	Fatal Accidents.		Non-fatal Accidents.	
	Number of Separate Fatal Accidents.	Number of Deaths.	Number of Separate Non-fatal Accidents.	Number of Persons injured, including those injured by Accidents which proved Fatal to their Companions.
Explosions of firedamp ...	...	...	...	...
Falls in mine ...	1	2	2	2
Shaft accidents ...	...	...	...	...
Miscellaneous—				
Underground ...	...	...	14	14
On surface ...	...	...	...	...
Totals ...	1	2	16	16

I have, &c.,
B. BENNIE,
Inspector of Mines.

Mr. ROBERT TENNENT, Inspector of Mines, Westport, to the UNDER-SECRETARY, Mines Department.

SIR,— Inspector of Mines' Office, Westport, 20th March, 1909.

I have the honour, in compliance with section 78 of "The Coal-mines Act, 1908," to report as follows on the West Coast coal-mines for the year ended 31st December, 1908 :—

Golden Bay Coal-mine, Motupipi.—Nothing further has been done on this property.

Pakawau Coal-mine (owner, E. G. Pilcher, of Wellington ; P. McCaffrey, mine - manager).—(24/10/08) : With the exception of driving a dip heading 140 ft. in the 3 ft. seam, for a yield of 480 tons of coal for the year, all other mining operations have been suspended.

Puponga Colliery (owners, Puponga Coal and Gold Mining Company (Limited), (British) ; C. Y. Fell, Nelson, attorney ; A. H. Taylor, mine-manager).—(24/10/08) : This company suspended mining operations on the 31st March last, for the purpose of installing Ingersoll coal-cutting and air-compressing machinery. To erect this plant in a central position, and under the same roof with the haulage and boiler installations, a favourable site was of importance, as considerable excavation was necessary. This preparatory work was completed in September, and the plant erected and in operation when visited in October, the whole installation being satisfactory, while the percentage of round coal won showed a large increase as compared with hand-labour formerly employed. When using the Ingersoll coal-cutter, particularly in workings of medium height, any difficulty relative to angle of inclination is simply removed by setting the column at an angle favourable to the pitch of the seam ; whilst the average duty per minute is stated to be 250 blows of 300 lb. by 9 in. stroke, under a working air-pressure of 70 lb. per square inch. In order to intersect and exhaust a rise section of the lease, and extend the use of coal-cutting machines, 7 chains of self-acting surface incline was constructed in direct connection with the screening plant, on gradients varying from 1 in 5 to 1 in 3. Connecting with the incline, a main crosscut level is being driven and timbered, 10 ft. by 7 ft. in the clear. This level has touched the outcrop. Whilst these developments were in progress, extensive repairs were effected throughout the dip working ; also a change-room and baths have been provided for the convenience of the workmen.

Westport-Stockton Colliery (owners, Westport-Stockton Coal Company (Limited) ; George H. Broome, general mining-manager).—(6/12/08) : This colliery was officially opened on the 6th October last, and, with the exception of some two weeks' stoppage to complete the laying-down of the third (brake) rail on the electrical haulage-line, mining operations have since been carried out by double shift without further hitch. In opening the colliery, mining was commenced east and west off B tunnel (under the ordinary bord-and-pillar system) with electrically driven coal-cutting machines and hand-labour equally employed. The main ventilation is induced by a motor-driven fan, 7 ft. in diameter, of the improved Waddle type, and the narrow-heading work by auxiliary motor-driven fans exhausting through 12-in.-diameter pipe-lines, the whole ventilating system being of a high standard.

Electrical installation : The power-house consists of a ferro-concrete construction, in length 174 ft., width 50 ft., and height 25 ft., divided into three compartments—engine-room, condenser-room, and boiler-room. The two main generator sets are British-Thompson-Houston three-phase generators, 300 kilowatts, 6,600 volts, direct-connected, and on a common bedplate with a 475 brake horse-power Belliss and Morcom triple-expansion condensing-engine ; whilst the exciting-current for the fields is supplied by two exciter sets, each consisting of a British-Thompson-Houston 14-kilowatt 88-volt

generator, direct-connected with a Belliss and Morcom simple condensing-engine, the set running at 600 revolutions per minute. A motor-generator set is installed in the power-house, to light the general plant and operate a number of direct-current motors about the storage-bins. This set consists of a 100-kilowatt, direct-current, 280-volt, flat compound generator, direct-connected to a British-Thompson-Houston three-phase, 6,600-volt, 150-horse-power motor, running at 705 revolutions per minute. The main switchboard has eight panels and three blank panels for further extension. The direct-current voltmeter for the motor-generator set is mounted on the extreme left panel; the synchronising indicator and exciting voltmeter, together with Tirrell regulator, on the extreme right panel. Added to these there are two small auxiliary panels, one for the control of a 40-kilowatt, 6,600-volt primary, 230-volt secondary transformer, and the second panel for the control of a 75-kilowatt, 6,600-volt primary, 230-volt secondary transformer. The switchboard is adequately fenced off. Sub-stations: Direct current is supplied from three sub-stations to run the locomotives and mine machinery, including coal-cutters and ventilating-fans. The trolley-wire in use is General Electric Company's grooved No. 0000 throughout, and in parallel therewith is a stranded cable of 600,000 mils. This wire is bare outside the mine, but covered inside, while the feeder-cable is tied to the trolley about every 150 ft., and the height of trolley-wire above tram-rail is 7 ft. 8 in. Over a total length of five miles transmission-line there are nine transpositions.

Millerton Colliery (owners, Westport Coal Company (Limited); William Dunn, local manager).—(3/12/08): Throughout the varied developments of this extensive colliery, efficiency is maintained in accordance with the rapidly increasing demands, whilst safety to life and property receive careful attention. Including engine-coal, the gross tonnage raised was 322,631 tons, being the largest yet recorded, an increase of 19,517 tons 19 cwt. on the preceding year.

Mine Creek and Mangatini sections: Outside the ordinary and general routine of solid and pillar operations, developments have been unimportant, attention having been directed to complete the more important works in connection with the Mangatini section of the lease. These extensive works are now completed, and, notwithstanding the large expenditure incurred to develop and equip this property with modern and economic labour-saving appliances in haulage, coal-cutting machinery, &c., the field so far developed affords exceptional promise in thickness, hardness, and quality of seam, while the natural stratigraphical features of the field furnish factors favourable to the general working-conditions of the mine. With regard to additional mechanical power, provision has been made at the central power-station, situated at Mine Creek, where two Babcock boilers are being erected, together with a powerful dynamo for lighting purposes, which will eventually supply a motor-driven Sirocco fan, calculated to maintain a ventilating-capacity of 150,000 cub. ft. of air per minute, at a 3 in. water gauge. Meantime, Mangatini section is temporarily ventilated by an induced-draft Sirocco fan, driven by direct-coupled engine, actuated by compressed air.

New Tunnel district: With the object of effecting the safety and extended operations of the coal-field, mining was suspended (in the above-named district) and a contract let in June last to continue the main rock tunnel a further distance of 50 chains, on a rising gradient of 1 in 10, to connect with the Mine Creek working, and finally abolish the heavy graded road (1 in 3) known as Mine Creek Jig. Driving is continuous (three shifts) from both ends (Sundays excepted), with very satisfactory progress, while the stratum is a hard, compact, grey granite. Contract time to complete is eighteen months, but, according to the average rate of driving, a holing is not expected to exceed sixteen months. This route, when completed, will form the main entrance to the mine, both as a haulage and travelling road. In this driving, water and ventilation are amply provided.

A fatal accident occurred to John Moloney (miner) by fall of stone in the No. 14 district of pillars.

Prosecutions under the Coal-mines Act: W. Arthur—Charge, false entry in report-book; fined £2. W. Arthur (same person)—Riding on truck; fined £1. W. Arthur (same person)—Charge of drunkenness; withdrawn. C. Moyle—Two charges—drunkenness in mine, fined £1; riding in truck, fined £1. V. Curran—Two charges—drunkenness in mine, fined £1; riding in truck, fined £1. H. Smith—Three charges—riding in truck, fined 10s.; trespass in mine, fined 10s.; drunkenness in mine, withdrawn. D. Hill—Three charges—riding in truck, fined 10s.; trespass in mine, fined 10s.; drunkenness, withdrawn. Five boys were convicted and discharged for throwing stones in sheds.

Denniston Collieries (owners, Westport Coal Company (Limited); J. Brown, local manager).—(9/12/08): Notwithstanding that mining operations were exclusively confined to single-shifting over the whole system, the gross tonnage lowered down the inclines for shipment, 294,760 tons, was the highest yet recorded for any similar period on single shift. The general developments continue to be kept well in advance of the growing requirements. In the earlier history of this property extensive areas were left standing on pillars, which, for various reasons were only partly extracted. This condition has happily given place to more modern practice, and a more exhaustive and proportionate extraction is now being effected.

Coalbrookdale Mine: The sections of the Cascade areas have developed beyond anticipations, while the thickness and quality of the seam are practically unequalled. The output is chiefly produced by coal-cutting machines. Regarding the ordinary working-conditions, there is little of importance to note. Munsie's section: All solid working to the dip has been exhausted to a given point, from which the management intends to forewin the remaining portion from the upper levels of Cascade dip section: this system will provide free drainage, and a more direct ventilation and haulage. East Cascade pillars still stand intact, extraction awaiting completion of the winning-roads now pushed from the main haulage. The main drive (stone) now being driven, 10 ft. by 7 ft. in the clear, to exploit the Waratea portion of the lease, has made satisfactory progress, and is calculated to connect with the workings on the right-hand side of Cascade during the current year. On completion of this drive, endless-rope haulage will be installed to win the right-hand coal, while the remaining portion of the drive will be completed to its terminal point in the lease.

Ironbridge Mine (8/12/08): Much of the work done in this mine has been of the ordinary routine character, pillar-extraction showing a high percentage of the coal won. In the districts where solid work is extended the quality of seam has been maintained, notwithstanding that local stratigraphical troubles, which cause varying grades and thickness of seam, tend much to detract from uniform working. As an instance of these irregularities, the seam in the Dundee dip is divided over a considerable area by intervening strata, therefore, the lower portion has been intersected by a stone drive, and the working-places thus won have proved coal of good quality, which, so far as can be ascertained, will extend over several acres. **Kiwi section**: The whole area of solid working having become exhausted to the outcrop, the output is wholly maintained from the extraction of pillars, the natural conditions of the field being favourable for total exhaustion with a minimum of risk. **Old Shaft section**: Work in this old district is being carried on with the expectation of winning a fairly large area of virgin ground in which the seam is expected to continue and maintain coal of good marketable thickness and quality. **Deep Creek**: In connection with the development of this area, the preparatory work has been steadily pushed forward. As mentioned in my report of last year, the $5\frac{3}{4}$ chains of rock tunnel has been completed, and the Deep Creek bridged with a substantial steel-girder structure. Connecting with the bridge there are some 5 chains of surface-clearing and slight grading to do to meet the outcrop, when it is fully anticipated coal will be produced during the year. To further facilitate and increase the ventilation at the Ironbridge Mine, it is proposed to erect a duplicate Schiele fan to that now doing duty. With this additional ventilating-capacity, a high working-margin should be available.

Including the blasting operations at both mines, 56,655 shots were fired during the year, with an average yield of 5.43 tons per shot. Miss-shots were 0.3 per cent. of the total. It is pleasing to report absolute freedom from fatal accident at the Denniston Mines. There were no prosecutions. The company has erected a commodious and up-to-date boardinghouse situate between Denniston and Burnett's Face, affording suitable accommodation to between forty-five and fifty boarders. The establishment is lighted by electricity, while hot and cold baths and clothes-drying room are provided.

White Cliffs Coal-mine, Buller Road (Job Lines, lessee).—(24/9/08): There is practically nothing of importance to report in connection with the operations at this property, the output being chiefly confined to the requirements of the Old Diggings and New Buller Junction dredges. The seam maintains its former thickness and quality, and timbering is made a special feature. Ventilation is well maintained by second outlet.

Flaxbush Coal-mine, Three-channel Flat (S. De Filippi, owner).—(23/9/08): A miner and youth continue to find coal for the Mokoia dredge on the Buller River, the coal being only suitable for steaming purposes. Ventilation is good, and timber is freely used to secure the stoped ground, as the seam is practically vertical.

Burke's Creek Coal-mine (owners, Cairns and McLiver).—(21/12/08): With reference to the operations of this mine, they are a mystery, particularly as to the conditions under which the owners find a living, it being difficult to find any person at the mine when it is visited for the purpose of inspection. The property bears an appearance of neglect. During the late heavy rainfalls the tram-line suffered considerable damage.

Lockington's Leaschold, Burke's Creek, Reefton (Elisha Lockington, owner).—(21/12/08): Attention has been directed to win a lower section of dip coal on the outcrop of west level, by cutting a deep surface drainage. The coal is of good quality, and more free of pyrites than usual in a mine. Two men were employed.

Archer's Freehold, Caplestone (F. W. Archer, owner).—(21/12/08): Coal continues to be taken from the top seam on the No. 3 low-level tunnel. The rock-driving mentioned in previous report has intersected the seam at a driven distance of 120 ft., and, although not yet bottomed, to its full thickness, the coal is hard and bright. Other works in connection with the mine are in fair order.

Coghlan's Freehold, Caplestone (J. Coghlan, owner).—(21/12/08): This party continues to take coal from their low-level mine situate on the north bank of the Boatman's Creek. The round coal is very suitable for household purposes, and the small for dredging. Connection for a second outlet and ventilation has been provided.

Waitahu Coal-mine, Reefton (J. O'Donnell, owner).—(21/12/08): During the year mining has been exclusively confined to the 6 ft. seam in No. 2 tunnel, the main level having struck the fault-line on which the No. 1 drive has been standing for some time. In connection with cutting the fault, the difficulty with these small holders is scarcity of funds, notwithstanding the main coalfield may be easily obtained, and may yield profitable returns for many years. The damage to the aerial line across the Waitahu River has been repaired, and the mine is in full work.

Reefton Coal Company (J. Billett, owner).—(23/12/08): This property having changed ownership during the year, the output was, in consequence, considerably reduced, the supply being chiefly for steaming purposes in connection with the electric-light plant. Also, the main low level was cut off by downthrow faulting of formidable dimensions. During the heavy rainfalls recently experienced throughout the Reefton district, portions of the Nos. 1 and 2 tunnels have collapsed, the repairs of which will incur considerable expenditure. Repairs are being effected.

Town Belt Coal-mine (Morris and Leishman, owners).—Work at this mine has been suspended during the greater part of the year.

Murray Creek Coal-mine (Morris and party, owners).—This party have abandoned their lease.

Golden Treasure Coal-mine, Murray Creek (J. Billett, owner).—(22/12/08): Open face. This property being practically exhausted riseward, the output is chiefly confined to the requirements of the winding and air-compressor plants on the Energetic Mine.

Phoenix Coal-mine (John Knight and Co., owners).—(22/12/08): Referring to the fire on this property, the water-supply formerly laid on from the upper reaches of the Victoria Creek is still in flow, but the supply is dependent on rainfall. However, the recent heavy rainfalls have cooled down

the whole property, smoke being visible at only one or two points. The Knight's party have recently opened out a section of superior household coal on the Venus lease, the small coal being now used at the Golden Fleece battery.

Lankey's Creek Coal-mine (owners, Watson and Pascoe).—(22/12/08): The development of this property continues to improve, and the construction of better roadways has received much attention, whilst an old abandoned pillar area has been recently opened, where it is expected to locate much solid coal. Ventilation and timbering are special features throughout the working, and the small coal for steaming purposes is in good demand.

Progress Coal-mine, Reelton.—The quality of the coal having become worthless through faulting, operations are in the meantime abandoned.

Loughnan's Coal-mine (J. Billett, owner).—(21/12/08): As mentioned in previous report, this mine was shut down since change of ownership; but on suspension of operations at the Progress Coal-mine, operations were resumed to meet requirements at the Globe Mine. The quality of the coal is superior for steaming purposes to that formerly supplied. The working is in good order, and new iron tram-lines have been laid throughout. The first timber is standing, and in good order.

Blackball Colliery (owners, Blackball Coal Company (Limited); Walter Leitch, mining manager).—(18/12/08): Notwithstanding the loss in output in consequence of a prolonged strike, which extended over a period of eleven weeks, the gross tonnage—85,348 tons, for nine months only—shows a decrease of only 7,670 tons as against the previous year. Thus, according to the rate of production per week worked, a substantial increase is maintained, this being dependent on the ten-hour system of haulage mutually arranged between employer and worker. Fresh development is important, the total drivage on the winning levels being only 5 chains. This reduction of driving will not affect future output, and may be chiefly attributed to the extraordinary repairs effected towards the extension of the endless-rope haulage-line a further 35 chains, making the operative haulage system 90 chains in length from point of terminal to delivery at aerial tram-line. In referring to the new works under construction, and in connection with the Ngahere-Blackball Railway system, it is notable that, since the levels for sidings and site for storage-bins have been determined, the various works connected therewith are being actively pushed, and the time of completion is anticipated to be about that of the Government works. The computed capacity of the bins is 2,500 tons; the sorting and handling equipment will comprise the latest devices in tipplers, screens, and conveyors. The panel system of working continues to be a success in the dip section of the mine, particularly as heating in any district can be separately and promptly dealt with at a minimum of risk to the men engaged, and also at a much-reduced expenditure. Ventilation and timbering are attended to satisfactorily.

Paparoa Coal-mining Company (Limited) (J. T. Watson, mine-manager).—(17/12/08): The various works of development continue to be vigorously pushed, including railway-construction, rock-tunnelling, and coal-development. The lower incline tunnel has been completed at a total length of 20 chains, whilst the construction of the viaduct to connect with the Cliff Flat at the entrance of No. 2 tunnel is well advanced. In driving No. 2 tunnel the mine-manager has spared no effort to push the work ahead, with the expectation that a holding would be effected about the end of January, 1909; but, as driving from the Soldiers' Creek side of the range was compulsorily suspended owing to an inflow of water in the face, the burden of work is being done by rock-drills from the lower end, and on the 16th February, 1909, a holing was estimated at 200 ft. For the main ventilation scheme, a steam-driven single-inlet Sirocco fan, 105 in. diameter, with a computed capacity of 110,000 cub. ft. per minute, has been delivered, and the foundations and other preparatory works await its installation. The archway forming the entrance to the main return airway tunnel is a spacious and substantial structure, built of dressed red-pine blocks, rested on and covered with reinforced concrete. Also steel girders will take the place of timber to secure the main return airway to a finished sectional area of 10 ft. by 8 ft. Meantime, operations are ventilated by three separately installed Sirocco fans, with capacities varying from 3,000 cub. ft. to 7,000 cub. ft. per minute. Reports and other provisions of the Act are strictly enforced.

North Brunner Coal Company (Limited) (Arthur P. Harper, attorney, Greymouth).—Since Thornton's lease was taken over by this company, active prospecting has been carried out by a series of short drives, which aggregate to a total length of 450 ft., together with other important surface works, by which several outcrops have been exposed. On the hypothesis that these preliminary prospecting-works afford sufficient information to determine accurate data relative to the extent of the coal-bearing area and natural position of the 16 ft. seam, the management has commenced a rock tunnel (10 ft. by 6 ft. 6 in. in the clear) to intersect the seam at estimated distance of 375 ft., and at a point 400 ft. above sea-level. Including the bridge across the River Grey, the line of endless-rope haulage, calculated to connect the mine with the loading-station to be erected at Stillwater Junction, will be 67 chains in length on a gradient of 1 in 12 in favour of the load. At time of writing, tenders were called to bridge the River Grey, but so far nothing further has been done. Houses are being erected for the mine-manager and other officials in the township of Stillwater. Mr. Robert Wragg, late of New South Wales, has been appointed mine-manager.

Brunner Mine (owners, Point Elizabeth Railway and Coal Company (Limited); James Armstrong, mine-manager).—(17/12/08): With regard to the faulted character of the St. Kilda section of the lease, change in the geological conditions exposed was not important during the early months of the year—the only condition favourable to further prospecting was that sufficient width of coal was still available to push forward the winning-headings; when finally the pitch, thickness, and quality of the seam suddenly changed, with much improved working-conditions, especially in hardness of roof. Consequently, promise of future development has been more assured, and construction of storage-bins, screens, and other surface plant more actively pushed. Ventilation has also been much assisted by the installation of a Sirocco fan driven by water-power, and the output has considerably increased. Double-

shifting is the system of operations, affording employment to forty underground and ten surface hands. Engine haulage on the surface incline has taken the place of horse as formerly employed. Two prospecting-drives are being driven from the river-bank, with a view of making a probable connection with the present working-area; but the coal is soft throughout the whole drivings, and heavy timbering is required.

Tyneside Proprietary Company (R. Alison, mining manager).—(8/5/08): Mining operations were successfully carried out on this property until the mine was flooded on the 8th May last. Output, 40,304 tons. In relation to the flooding of the Tyneside Coal-mine, past experience has proved that in all cases of pillar-extraction in dip workings, similar difficulties have invariably arisen, particularly where the strata overlying the pillared areas are broken, and free drainage unobtainable. These facts directly affect the economy of pillar-extraction throughout the West Coast coalfields. Prior to flooding, the water had been controlled for over twelve months by direct double-acting plunger sets, each 12 in. diameter by 3 ft. stroke, permanently installed on line of main dip haulage-road, where considerable storage-capacity was under control should emergency occur; but prior to the excessive rainfall on the 5th May last, danger of flooding was not anticipated. To meet this emergency, however, a special double-acting Tangye pump, fitted with rams 8 in. in diameter by 3 ft. stroke, was added, and worked in conjunction with the main pump, while mining operations were also suspended to apply the whole boiler-power available. With this additional pumping plant, complete control of the water was speedily maintained, and, on visiting the mine at 11 a.m. of the 8th May, the severity of the storm was apparently over, and the pumps were making satisfactory progress towards reducing the water. Unfortunately, however, on the evening of same date a terrific thunderstorm, accompanied by excessive rainfall, swept the whole West Coast areas, and speedily raised the rivers to high flood. At this juncture the unprecedented inflow of surface water through the broken strata, together with the inrush of flood-water from the River Grey, forced a passage through an old coal-drive formerly worked by the late Mr. Kilgour. It was then evident that no available means were possible to save the mine from flooding, notwithstanding the present company had previously protected the drive by an efficient log dam; but, as the site on which the dam had to be built was a fireclay floor with coal sides, crushing by "creep" from the adjoining pillared ground was unavoidable. I am satisfied the management spared neither time nor expense to save the situation, and the company certainly suffered a loss, as the few remaining months' work would have been profitable. The mine was estimated to last about six to eight months longer.

COAL-MINERS' ACCIDENT RELIEF FUND, ADMINISTERED UNDER THE COAL-MINES ACT.

Where the funds are managed under medical associations, the following table shows the contributions paid by the various coal companies, the balances credited at the Post-Office Savings-Bank, the amounts expended on accident allowance, and the increase or decrease on fund for the year 1908:—

Colliery.	Contributions and Interest.			Balance in Savings-Bank.			Accident Allowance.			Increase.			Decrease.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Denniston ...	888	0	0	5,410	15	4	709	11	8	178	8	4	...	...	...
Millerton ...	732	1	9	2,048	14	4	788	6	4	...	...	...	56	4	7
Blackball ...	193	16	10	1,047	18	4	112	1	11	81	14	11	...	...	...
Brunner ...	180	6	10	1,105	4	10	77	14	2	102	12	8	...	...	...
Point Elizabeth ...	491	18	3	247	4	8	441	11	10	50	6	5	...	...	...
Totals ...	2,486	3	8	9,859	17	6	2,129	5	11	356	17	9*	...	...	...

* Net increase.

ACCIDENTS.

Of the number of accidents reported as coming within the meaning of section 62 of "The Coal-mines Act, 1908," three were fatal and six non-fatal. Of the persons killed, two were underground at the working-face, and the other, a surface hand, fell a distance of 27 ft. over the Blackball Coal Company's storage-bins.

FATAL.

Point Elizabeth Colliery.—(4/6/08): Robert Lumsden, miner, killed by fall of stone in the face, caused by collapse of timber.

Millerton Colliery.—(24/9/08): John Moloney, miner, was killed by fall of rock from edge of goaf.

Blackball Colliery.—(15/10/08): Ernest Rouse, surface hand, killed by falling over storage-bins.

NON-FATAL.

Cascade Mine, Denniston.—(8/1/08): John Cook, miner, sustained compound dislocation of the right foot by fall of head coal in face.

Tyneside Colliery.—(9/1/08): Daniel Ganey, miner, sustained fracture of left leg by fall of stone in the face.

Millerton Colliery.—(4/6/08): Richard Arbuckle, miner, sustained injury to legs and lower jaw-bone, and Patrick O'Neill, miner, scalp-wounds and contusions of pelvis, by fall of coal in their working-face.

Coalbrookdale Mine, Denniston.—(24/8/08) : John Walker, miner, sustained broken rib and injury to the lower section of back by fall of roof-coal while preparing to set prop.

Seddonville Colliery.—(28/8/08) : Guy Fleming, while repairing rope-road, sustained severe crushing of right hand, three fingers being amputated, through having it carried round curve wheel while the rope was in motion.

SUMMARY OF FATAL AND NON-FATAL ACCIDENTS CLASSIFIED, AND CAUSE.

	Fatal Accidents.		Non-fatal Accidents.	
	Number of Separate Fatal Accidents.	Number of Deaths.	Number of Separate Non-fatal Accidents.	Number of Persons injured.
Explosions of firedamp	...	...	...	...
Falls in mine	2	2	4	5
Shaft accidents	...	...	...	...
Miscellaneous—				
Underground	...	...	...	...
On surface	1	1	1	1
	3	3	5	6

GENERAL REMARKS.

As affecting the industrial interests dependent on the Grey Valley Coalfield, the more important features were the prolonged strike at Blackball and the flooding of the Tyneside Mine. With the increase of output produced from the Brunner and Point Elizabeth (State) Collieries, the shipments from the Port of Greymouth only show a decrease of 3,731 tons as compared with the previous year. Whilst quoting the returns from the Buller Coalfield, the Westport Coal Company shipped from the Port of Westport 613,218 tons, from Seddonville State Mine 55,231 tons, and from Westport-Stockton 3,267 tons. Thus an increase of 25,521 tons is shown in favour of Westport as against the previous year.

Mechanical ventilation is now generally installed. Included in the latest installations are a motor-driven improved Waddle fan at Westport-Stockton and a steam-driven Sirocco at the Seddonville State Colliery ; whilst on the Paparoa coal lease and the Mangatini section of the Millerton Colliery two other Siroccos, with respective capacities of 110,000 cub. ft. and 150,000 cub. ft. per minute, are in course of erection. The Paparoa fan will be steam-driven, and that at Mangatini motor-driven.

Persons employed.

The total number of persons employed in and about mines under the Coal-mines Act was 2,044, a decrease of 114 on the previous year. Of these, 1,523 were employed below ground, and 521 above ground. Omitting number of persons employed in the development of new leases, the coal raised per person actually employed below ground was 724·339 tons, and per person employed above and below ground, 536·128 tons.

Accidents.

The death-rates from accidents per 1,000 persons employed during the year were—(a) below ground, 1·313 ; and (b) above ground, 1·919. Per 1,000,000 tons raised, the death-rate was 2·823, as against 4·752 in 1907 and 2·007 in 1906.

Foreign Trade.

Westport Coal Company.—The total tonnage shipped directly from Westport to ports outside the Dominion during the year 1908 was 42,958 tons, this being an increase of 4,511 tons as compared with 38,447 tons for the year 1907, and in comparison with the year 1906 an increase of 9,713 tons.

I have, &c.,
R. TENNENT,
Inspector of Mines.

Mr. E. R. GREEN, Inspector of Mines, Dunedin, to the UNDER-SECRETARY, Mines Department, Wellington.

SIR,—

Office of Inspector of Mines, Dunedin, 23rd March, 1909.

In accordance with the requirements of section 78 of " The Coal-mines Act, 1908 " I have the honour to submit the following report on coal-mines in the Southern Mining District for the year ending 31st December, 1908.

CANTERBURY.

Springfield Colliery, Springfield (Christchurch Brick Company, owners ; T. N. Horsley, secretary ; James Taylor, permit, mine-manager).—(8/12/08) : After standing idle for some months, a start has

been made by repairing the upcast air-shaft, and now driving in fireclay towards the old main shaft, which is also used for pumping purposes. The coal-seam is practically worked out, there being only sufficient available for steaming requirements on the works. The fireclay is in demand for manufacturing purposes in Christchurch, where it is conveyed by rail. Two hundred and forty tons of fireclay was mined during the year.

Springfield Fireclay Mine, Springfield (Christchurch Gas, Coal, and Coke Company, owners: R. English, general manager; R. Peters, permit, mine-manager).—(8/12/08): Communication with old air-shaft is closed, and the new-shaft sinking to restore air-course should be prosecuted without delay, as pointed out to the person in charge. This mine is worked chiefly for production of fireclay underlying a 2 ft. seam of coal, which latter is worked as required for consumption on the premises only. Fireclay-seam, 5 ft. After production is railed to Christchurch for manufacturing purposes there. During the year 1,228 tons of fireclay was produced.

Craigieburn Coal-mine, West Coast Road (D. Manson).—Forty-five tons of coal was taken during the year for station-requirements.

Austin's Fireclay Mine, Sheffield (Charles Austin, owner; Edwin Smith, permit, in charge).—(8/12/08): Only fireclay now being got at this mine, the drives of which are well secured by timber, there being also an abundance on the ground ready for use as required. During the year 972 tons of fireclay was produced.

Homebush Colliery, Glentunnel (J. C. Campbell, mine-manager; Dean's trustees, owners).—(8/12/08): No. 1 Mine pillaring section: Air at intake, 6,000 cub. ft. per minute. Pillars are withdrawn successfully back to the "fault," a high percentage of coal, estimated at 95 per cent., having been won. Timber is kept close up to working-faces. Ventilation is good.

No. 1 Mine, dip section: Air at intake, 6,000 cub. ft. per minute. South side, three places going in solid. North side, No. 2 heading finished and stopped off. Coming back on pillars of No. 1 heading both sides. Some sweating visible in one place, which will soon be cut off and left behind in the waste. The return air-course, which is somewhat cramped in area owing to heaving bottom and fallen false roof, is to be restored by a new pillar stripway. Ventilation, fair.

Engine seam: Ventilation, 4,500 cub. ft. per minute. Levels driven to northern boundary, making in thinning and stony coal. Preparing to bring back the pillars. All places timbered to faces. Seam, 5 ft. 6 in.; air-shaft, 80 ft. (4 ft. 6 in. by 3 ft. 6 in.). Airways in good order. Engine-supply seam is on outcrop, worked intermittently for boiler and ventilating-furnace fuel. Manager's, underviewers', and deputies' report-books to date. Powder-magazine approved for storage; fifty cases (25 lb. each) of compressed blasting-powder stored (C. and H.).

Fireclay-pit: Clay only obtained for brick and tile and sanitary-ware factory purposes on the premises. Seam from 20 in. to 3 ft. in thickness. During the year 159 tons of fireclay was mined.

St. Helen's Colliery, Whitecliffs (Messrs. Levick and Thin, owners; W. Thin, permit, mine-manager).—(8/12/08): Since last visit the dip drive has been extended 2 chains in coal-seam, 6 ft. Low levels are driven north 5 chains to the fault, and pillars are now being brought back. The south level is 6 chains to the face, coal having thinned down to 4 ft. 6 in. Altogether this area of coal is creditably developed, and is being successfully worked where coal had been previously regarded as non-existent. Ventilation good; rules posted; copy of Act kept at mine; report-book to date. Air-shaft 80 ft. (4 ft. by 3 ft.).

Te Moana Coal-mine, Geraldine (Crowe Bros. and McDonald, lessees).—(18/4/08): A new mine intended to supply fuel for brickmaking purposes on the premises. A high level along the strike of coal proves the seam to extend westerly, intersected by minor faults consequently coal crushed, and somewhat inferior. The level drive is well timbered and safe—in fact, almost too much care has been taken, the result being over-expenditure in proportion to amount of work done and information gained. Advised Mr. Crowe to set away to dip, and prove deposit in that direction.

Mount Somers Coal Company, Mount Somers (George Neil, secretary, Staveley; A. Thompson, mine-manager).—(13/12/08): By amalgamation with the Woolshed Creek Coal-mines Company, as holders of adjoining lease, headings are now being driven through the boundary into Crown lands area. Seam, 20 ft. of coal. The fireclay underlying the coal-seam has been favourably reported upon. Ventilation good; rules posted; report-book kept; powder-magazine approved. The new tram-line, four miles in length, is practically completed to the jig incline on the southern bank of Chapman's Creek. The tramway is laid for locomotive haulage with rails 40 lb. to the yard, and connects with the Selwyn County Tramway to Mount Somers Railway-station, nine miles distant. A contract has been let for construction of jig incline 25½ chains in length, grade 1 in 3½.

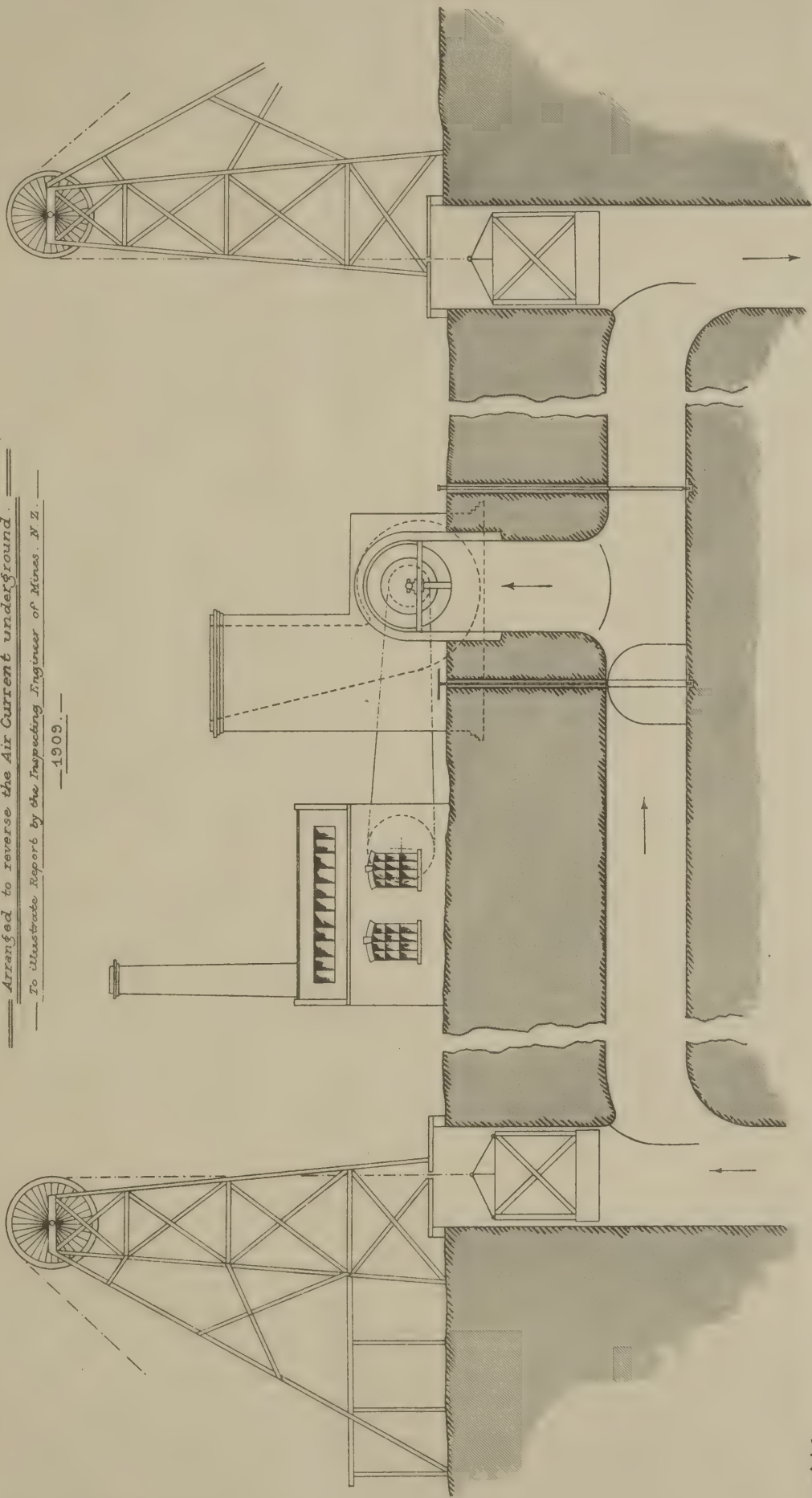
Woolshed Creek Colliery, Mount Somers (W. Pickles, secretary, Ashburton).—(13/12/08): Now under new ownership, lease having been taken over by the Mount Somers Coal Company, and shareholders absorbed by that company. Not much work doing here now. A drive was being timbered preparatory to prospecting towards old worked ground. A small drive lower down the creek is in on the outcrop of coal, and further prospecting is necessary to prove continuance of the seam in direction of dip.

Albury Coal-mine, Albury (C. E. Riddle, owner; Gavin C. Kidd, permit, manager).—(17/7/08): The mine has been taken over from Mr. G. H. Willetts by Mr. C. E. Riddle as from the 1st instant. Repairs to mine-mouth required, and to be made safe overhead where timbers rotted. Copy of general and special rules to be posted. Daily examination with safety-lamp, and report to be entered in report-book immediately after examination. Air-shaft to be repaired from damage during recent flood rains, and ladder to be placed in position.

Waihao Forks Coal Syndicate, Waihao Forks (George Lomas, permit, manager).—(16/7/08): South Branch pit flooded by recent rains and floods. North Branch: Prospecting-drive fallen in at mouth by slip from hillside. A second drive to the rise is in to the coal, where it is the height of the place

— SIROCCO FAN. —

Arranged to reverse the Air Current underground.
To illustrate Report by the Inspecting Engineer of Mines. N. Z.
— 1909. —



near McPherson's old drive. A prospecting-shaft sunk near-by, but to the dip, is said to have proved coal 18 ft. in depth. Being near the river, is liable to heavy drainage. Prospecting-shaft down 200 ft. Bore down to 460 ft.: at 44 ft. running sand and water carrying 2 ft. and 5 ft. seams of brown coal were met with; at 460 ft. struck hard quartz sandstone—chisel only made 1 in. per half-shift; work suspended pending arranging for Government diamond-drill.

Waihao Coal-mine, Waihao Forks (Stoney Creek Coal Company, Waimate, owners).—(16/7/08): Prospecting-drive on face of river-terrace had fallen in during recent floods; new drive going in from solid side of hill.

Elephant Hill Coal-mine, Waihao Downs (Edward Richards, owner).—(10/12/08): Private pit; output utilised for station purposes and requirements of the district. Pit in good order, having recently been restored in a substantial manner. Seam, 14 ft.; dip, 1 in 6 easterly.

NORTH OTAGO.

Dalgety Coal-pit, Hakataramea (New Zealand and Australian Land Company, owners; J. Drysdale, manager).—One hundred and eighty-three tons of coal produced for station use during the year.

Wharekuri Colliery, Wharekuri (Andrew Shanks, lessee).—(11/12/08): Vertical seam 40 ft. in width at widest parts. Strike of seam, north-and-south. Mine driven 250 yards in the sandstone formation to south of old worked ground. Drive in good order; ventilation good; no rules posted.

Kurow Coal-mine, Kurow (J. Sanderson, owner).—(11/12/08): Vertical seam 10 ft. in width; strike north-and-south. A new drive near the roadside is on coal at the face. Return air-shaft and second outlet provided.

Otiake Coal-pit, Otiake (George Taylor, owner).—This mine has been reopened, and a small quantity of coal taken out for local use.

St. Andrew's Colliery, Papakaio (Thomas Nimmo, permit, owner and manager).—(11/12/08): Old mine discontinued after twenty-five years' working, during which period there had been no serious accidents. Pillars have been drawn to near the mine-mouth. Estimated over 75 per cent. of seam won. Seam, 7 ft. New mine begun at the commencement of the year is being well developed. Air-shaft and second outlet provided: Powder-magazine approved; but, as very little explosive is used, one barrel only of blasting-powder is kept on hand.

Prince Alfred Colliery, Papakaio (Mrs. J. E. Willetts, lessee; C. O. Willetts, permit, mine-manager).—(11/12/08): Area, 60 acres lease on Coal Reserve. Old mine closed down and abandoned after working forty years without serious accident. New mine opened, and being developed on good lines. Upcast airshaft and second outlet provided. Old rules posted; report-book kept.

Ngapara Colliery, Ngapara (William Nimmo, permit, owner and manager).—(15/7/08): Mine in good order, also ventilation excellent. Second outlet-shaft requires ladders, which are to be put in, and Nimmo is to write me when done. There is, however, another second outlet and travelling-way which is known to the men. New copies of the general and special rules require to be posted. Magazine approved, and fifteen kegs (25 lb. each) stored. Proper canisters to be provided for carrying powder into the workings.

Shag Point Colliery, Shag Point (William Hunt, permit).—(9/10/08): A small mine in the upper seam facing the sea. Having worked up to the fault, pillars are now being drawn outward.

Allandale Colliery, Shag Point (W. Everest, secretary; A. McIntosh, managing director in charge).—(29/10/08): During the earlier part of the year work was continued in the main dip and north side, or Siberia workings. Nos. 1 and 2 seams having "come together" in the dip workings north, a thickness of up to 12 ft. was exhibited in coal of excellent quality. Some heating in a portion of the worked ground on the old north side of main dip was observed in the month of July, and driven on to locate the spot for the purpose of cooling it down. Early in October the incipient fire having become more pronounced, the owners decided to draw the electric pump and plant, and close that section of the mine, to allow of generation of gases and water rising to flood the heated part. When this was done, attention was paid to the new dip in main seam south, where work is being conducted by a reduced number of workmen.

SOUTH OTAGO.

Fernhill Colliery, Abbotsford (James Gray, owner and manager).—(29/12/08): Ventilation, 5,250 cub. ft. per minute in return airway. Only small output of coal being obtained, principally from pillars and head coal. The sand-deposit on the property is extensively worked for supply to Dunedin and district for building and other purposes.

Freeman's Colliery, Abbotsford (Freeman's Coal Company; R. Green, general manager; A. S. Gillanders, mine-manager).—(29/12/08): Air at intake, 12,500 cub. ft. per minute. Travelling around the breast of working-faces off No. 5 dip, these were found in safe working-order; the roof, however, was inclined to cut up in the vicinity of thread faults which occur, consequently advancing places are driven narrow and timbered where necessary. Owing to the infrequency with which stentons were put through for air, ventilation at several working-faces was found inadequate. Pillar-extraction of sections at each side near bottom of No. 4 dip nearly completed. Generally, the mine is in good order, an adequate supply of timber being kept on hand and used as required. New rules posted; report-books and plan to date. The mine-manager was subsequently prosecuted for inadequate ventilation, as disclosed on my visit on the 29th December, 1908, when a penalty of £5, with costs £2 9s., was imposed by the Stipendiary Magistrate.

Green Island Minerals Company, Green Island (J. Loudon, managing director; T. Barclay, jun., mine-manager).—(26/5/08): Driving to dip in solid coal. Water is drained away from old workings to rise. Rules posted, and requirements of the Act are observed.

Jubilee Colliery, Saddle Hill (Jubilee Coal Company, owners; A. P. Bremner, general manager; Thomas Barclay, mine-manager).—(30/12/08): Furnace ventilation efficient, there being 12,500 cub. ft. of air per minute at intake. Circulation of air good, and being well conducted by brattice around the working-faces. Pillar and head coal-extraction is continued homeward and up to the boundary of adjoining property, being worked as Saddle Hill No. 2 Colliery. In dip workings to south-east, coal-seam faulted and coal not of best quality. New rules posted and requirements of the Act generally well observed.

Burnwell Colliery, Saddle Hill (Adam Harris, owner and manager).—(30/12/08): New airway and second-outlet travelling-way completed. Ventilation good. Continuing robbing and extraction of pillars and head coal in dip section. The new drive for outlet has exposed a second seam of coal, which will be held in view for future working. The water-level is proved by the drive to the dip, and there is less standing water than might have been expected in the old workings. New rules posted; report-book to date.

Saddle Hill No. 1 Colliery, Saddle Hill (Christie Bros., owners; W. W. Ogilvie, mine-manager).—(30/12/08): Latter work consists of withdrawal of pillars in McIntyre's section, where the coal-seam is found to be 22 ft. in thickness, of which about 20 ft. is being won. The line of pillar break in roof is well maintained. Some improvement in ventilation agreed upon would result in decreased temperature at working-faces where it was found to be rather high—viz., 70° Fahr. The solid coal barrier between this and the adjoining property remains untouched as heretofore. Percolation of drainage-water continues through the joints of the seam forming the barrier. The slight flow varies according to weather conditions. No better safeguard could be contemplated—viz., a solid barrier of coal with percolation in numerous places along its length, thereby insuring a minimum of standing or accumulated water on the other side. Rules posted, and report-books to date.

Saddle Hill No. 2 Colliery, Saddle Hill (Christie Bros., owners; Robert Hill, mine-manager).—(30/12/08): As is occasional in bord-and-pillar workings, several of the leading places are past the airway; consequently air dull and stale at these working-faces. Fan ventilation is being substituted for furnace in use. The old workings to rise, having exhibited signs of heaving, are now sealed off. Alteration of dip and rise of coal-seam due to faulting has interfered somewhat with systematic development of the workings. Coal-seam strong, and minimum of timber used or required in working-places. Rules posted; report-books and plan to date.

Lauriston Colliery, Brighton Road (James Walker, owner and manager).—(3/9/08): Working-places in good order. Ventilation good. New second-outlet shaft being made to west of haulage-road.

Brighton Colliery, Brighton Road (D. L. McColl, owner and manager).—(3/9/08): Clay swelling in tunnel to such an extent as to require frequent repairs and renewals to timber-sets. Coal-workings safe. Ventilation good.

Glenmuir Coal-pit, Brighton (A. Loudon, owner).—(3/9/08): No coal has been got from this mine for some time, and, as it has fallen at the entrance, work is suspended indefinitely.

Ferndale Coal-pit, Taieri Mouth (R. Ferndale, owner).—Small output maintained for use of settlers in the district.

Real Mackay Colliery, Milton (Bruce Railway and Coal Company, owners).—(22/12/08): Mine closed down on the 6th November, 1908, as worked out. Plant being removed as required to Waronui Mine, which is under same ownership.

Waronui Colliery, Milton (Bruce Railway and Coal Company, owners; J. R. Wilson, general manager; James Carruthers, mine-manager).—(22/12/08): The new second outlet and airway is now completed to daylight in a convenient gully 20 chains to southward of main entrance. Railway-deviation in hand will require, for closer connection, a new bridge across the Tokomairiro River. Ventilation must be described as weak meantime, the intention being to provide adequate arrangements as development proceeds. Pillar section rather warm in one place. Powder-storage underground not altogether in compliance with requirements of the Act: the mine-manager promised to have a door placed across the chamber. Report-books and plan to date.

Wallsend Coal-pit, Lovell's Flat (R. Hewitson, owner).—Small output, restricted to local requirements.

Lakeside Coal-pit, Lovell's Flat (J. McGillivray, manager).—Private pit. One hundred and ninety-four tons, for owner's requirements, was dug during the year.

Taratu Colliery, Taratu, Kaitangata (Taratu Railway and Coal Company, owners; G. R. Cheeseman, general manager; Thomas Shore, mine-manager).—(23/12/08): The new communication-drive to upcast air and second-outlet shaft was completed on the 13th May, 1908. A proper ladder-way for travelling has been placed in the shaft. Ventilating-fan at surface driven by oil-engine at 220 revolutions induced 13,200 cub. ft. of air per minute. Roof tender in places approaching fault on westerly side of workings. Development-work is now proceeding in the new-shaft section. A new pair of winding-engines by Roberts and Sons, Bendigo, have been recently installed. Explosives carefully handled. Rules posted; plan and report-books to date. A coal-miner named John Richards sustained injuries to pelvis by fall of coal from roof on the 17th July, 1908, whereby he was incapacitated from work for a period of fifty-five days.

Port Arthur Coal-pit (late Record Reign), Kaitangata (R. Penman, lessee).—A small quantity of coal is obtained intermittently for local requirements.

Wangaloa Coal-pit, Kaitangata (Joseph Smith, owner).—(28/8/08): No one about. Since last visit pillars have been drawn from the level to the solid, and roof fallen. Evidently not much work done here latterly, and most of the coal to rise of water-free level appears to have been won.

Kaitangata Colliery, Kaitangata (New Zealand Coal and Oil Company (Limited), owners; O. G. Lockhart, secretary, Dunedin; W. Carson, mine-manager).—Operations throughout the year may fairly be considered to have been successfully conducted. The area of coal to eastward of No. 7 fault has been extensively developed, and proved to be greater in extent than had been previously experienced in the colliery. There is thus a large quantity of coal in sight, with every indication of continuance of the main seam to south and eastward of present workings. Only the main seam is being worked, there being ample coal for requirements; therefore the 18 ft. and 6 ft. seams are not approached meanwhile. Owing to the alteration of dip from steep to comparatively flat seam on the anticline, haulage is accomplished more conveniently than formerly. Sections of work are opened on the panel system, and subsequently pillared and robbed as rapidly as convenient, then stopped off permanently, thus minimising danger from spontaneous ignition, to which the coal is extremely liable. It is also found that the method of "shovel-filled" adopted, whereby all dross is filled away with the coal, is an important factor in reduction of spontaneous heating. No work proceeding to northward of main haulage-road. Districts producing coal are Winch heading pillars and No. 2 heading pillars—both almost exhausted—pillars in No. 6 level off No. 3 heading, and the new work eastward of No. 7 fault and new-shaft area. The roof of No. 18 dip drive is being brushed preparatory to restarting. Ventilation usually adequate throughout the mine, an average of 30,000 cub. ft. of air per minute being in constant circulation, and air generally well conducted to working-faces by brattice when required. In advancing places in the solid, traces of gas are occasionally reported as occurring at the coal-faces. Seldom, however, do these interfere with working or warrant withdrawal of workmen. Safety-lamps only are allowed in the mine, about three hundred lamps being in daily use. These are in charge of an experienced and trustworthy official at the lamp-cabin near the mine-mouth. The lamps are carefully tested with compressed air before being handed to the workmen. The lamps are numbered, and a register kept of each issue. An unusual occurrence happened on the 16th January, 1908, when a quantity of gas became ignited at a spontaneous fire in No. 3 bord, No. 19 dip section. What was considered a slight fire had started in a fall on return air-course, which a gang of men had stopped off with three single-bord stoppings. As the men were putting on their clothes preparatory to leaving the work, an explosion occurred in the waste, blowing out the stoppings, and burning one man rather severely about face and arms, while two others escaped with slight burns and bruises. It appeared that sufficient atmospheric air had been imprisoned within the stoppings to supply the ignited fire with fuel, and that this occurred just before sufficient time had elapsed to allow of gases being generated whereby an ignition would have been impossible. It is worthy of note that the heating had been considered of such little import that water which was available had not been applied to the "fire." Had this been done the accident would not have happened. Owing to the successful manner in which the reinforced steel tubes have stopped off the worked portions of the coal-seams, the management decided to restore the main haulage-road at the brick wall, known as No. 3, where the deviation was made some years ago. This has been done efficiently, and the intention is to re-establish wire-rope haulage on the main ways. Steam winding-engine and appliances for hoisting men at second outlet and upcast air-shaft are tested frequently, and kept in order so as to be available for case of emergency. An ample supply of mining-timber is kept on the colliery premises for use as required. The mine is under careful management and supervision, both above and below ground, day and night continuously. For greater safety, shot-firing by electricity, and the use of only permissible explosives under the British Order have been again suggested. Separate magazines are provided for storage of explosives. Rules posted, report-books kept, and plan to date.

Castle Hill Colliery, Kaitangata (New Zealand Coal and Oil Company (Limited), owners; W. Carson, mine-manager).—(19/8/08): As has been usual, this mine was worked for output during the winter months only. Stone crosscut level pillars fast drawing to a close. Pillaring places in carriage heading crosscut are being gradually brought backward. No. 7 dip north and Jordan's seam working-places in good working-order. Travelled main return air-course to furnace upcast air-shaft, examined stoppings *en route*, which bore evidence of being well maintained. Water-balance apparatus at the second-outlet shaft was tested, and proved capable of raising and lowering persons, and is kept ready for use when required. Seventeen thousand cubic feet of air per minute is circulated throughout the mine. Only safety-lamps in use in all working-places, which were found free from gas. Open lights and electric lighting are allowed on the main haulage-roadway. Approved magazines on surface for storage of explosives. Rules posted, and requirements of the Act generally well observed.

Benhar Colliery, Stirling (Messrs. P. McSkimming and Son; Colin Murdoch, permit, manager).—(20/8/1908): Workings conducted in third and lowest seam worked; thickness not ascertained, but presumably 20 ft. and over. Fault met at dip face extends along the line of easterly workings, but displacement not serious so far as can be seen. Working safely conducted. Approved magazine erected for storage of explosives. Sanitary glazed ware and pipe factory on the premises is developing rapidly. During the year 2,300 tons of fireclay was produced.

Mount Wallace Colliery, Stirling (F. Park, lessee).—(30/8/1908): Seam strong; thickness not ascertained, but is seen to be 20 ft. or over. I drew the workman's attention to the necessity for using sprags where holing in a wide place; also suggested that area of pillars should not be less than that of the places driven.

Mainholm Colliery, Conical Hills, Waipahi (William Lischner, owner and manager).—(19/12/1908): Opencast pit. Stripping kept exceedingly well ahead of working-face, and mine worked in a safe manner. Seam 20 ft., all being won. A brick and tile manufacturing works is attached to the colliery. The powder-magazine is to be shifted to a place of greater safety, and new construction to be carried out as agreed upon. Report-book kept.

CENTRAL OTAGO.

Coal Creek Collieries, Coal Creek Flat, Roxburgh (Barber and Shaw, lessees; J. Barber, mine-manager).—(4/12/1908): The freehold portion of the mine is not now being worked. Underground mining is conducted from the opencast face on the leasehold property. Places are well driven, and standing safely in this abnormally thick seam of coal. Natural ventilation good. The mine is unwatered by siphon.

McPherson's Coal-pit, Coal Creek Flat, Roxburgh (A. J. McPherson, permit, manager).—(4/12/1908): Opencast. In good working-order; stripping generally kept well in advance of the working-face. A tendency to work under an overhanging face of coal was observed, and permit-holder's attention drawn to the dangers attendant upon the risky method of working, however strong the coal might appear to be. The condition of the heated part of the mine referred to in last year's report is now normal.

Craig's Preseverance Coal-mine, Coal Creek Flat, Roxburgh (James Craig, lessee; W. S. Craig, permit).—(4/12/1908): Seam, 75 ft.; dip, 1 in 3 north. Opencast now discontinued, and driving resumed. In upper layers seam soft and coal pyritous, facilitating spontaneous ignitions, of which there are several where falls of roof have occurred. These are carefully stopped off. Clay from hanging-wall, where fallen, is found liable to cause heating of dross and fallen roof or crushed pillars where they occur. Pumping and hauling done by water under hydraulic pressure. Six men employed. No explosives used.

McQueenville Colliery, Alexandra (S. T. Lett, lessee).—(4/11/1908): Pits have now been filled in, and edges of plumps to surface trimmed so far as may reasonably be expected. Damage to surface is practically confined to that part of the area within the influence of percolation from the Alexandra Borough water-race, about 1 acre in area. The coal is practically worked out, and the area may now be considered as settled and abandoned. The Warden has been recommended to consent to the application for cancellation of the coal lease.

Alexandra Coal-mine, Alexandra (including Undaunted Coal-mine, being adjoining section under same ownership), (Messrs. Mathias Bros. and Co., lessees; D. McNeill, mine-manager).—(3/12/1908): Connection made with Thomson's old workings to rise and south-west proved satisfactory, and closed again for future working. Attention now being successfully paid to extraction of coal in dip area, which had formerly been abandoned as unworkable on account of the unstable nature of roof and floor. Restoration of a disused shaft provides further convenience for second outlet and return air-shaft. Rules posted and plan forwarded.

Alexandra Coal Company, Alexandra (L. Ryan, secretary; J. Pollock, mine-manager).—(3/12/1908): A number of improvements have been effected during the year, among which may be mentioned the enlargement of sump at pit-bottom, thereby enabling Sunday pumping to be dispensed with; and the placing of dip-pump steam-pipes in return airway, and turning of exhaust steam from pumping-engines into upcast air-shaft; but the chief matter for congratulation was the completion of the new second outlet and air-shaft, thereby enabling working by small numbers of men on shift to be dispensed with, and workmen are now on day-shift, with consequent reduction in cost of production. Substantial ladders are placed in the new shaft. The working-places are kept in good order, boreholes in roof regularly continued, and, in addition, flank boreholes are put in nearing the riverward area. A few wet backs were encountered, which invariably pined off through time. Traversed the old workings, which were found standing in good order; no gases. Report-books kept, rules posted, and plan to date. Ventilation generally fair, and other requirements of the Act well observed.

Dummeys Coal Lease, Alexandra.—(11/6/1908): Owing to a band of stone in the seam, and the poor quality of the coal, it became practically unsaleable. After suspending operations for some time the shaft has been filled up, and cancellation of lease is now applied for.

Cambrian Coal-pit, Cambrian (Caleb Dungey, lessee).—(1/12/1908): Fair area stripped ahead. Lignite and shale seams associated.

Welshman's Gully Coal-pit, Cambrian (Sarah McGuckin, lessee; James McGuckin, manager).—(1/12/1908): Stripping and pumping by hydraulic water-pressure. Fair area stripped in advance of working-face.

Jones's Coal-pit, Cambrian (Robert Jones, Lessee).—(1/12/1908): The lessee has been engaged stripping and opening the pit, which it is proposed to work underground in future.

Price's Coal-pit, Blackstone Hill (D. McKnight, owner).—Coal for private use only raised during the year.

St. Bathans's Coal-pit, St. Bathans (James Enright, lessee).—(2/12/08): Only about 15 ft. of the seam is worked, owing to inadequate appliances for unwatering the pit, which I found in a bad working-state, face undermined, and no stripping ahead, as should be done for safety and economical working. Clay overburden fallen in—was attributed to heavy snow in winter. I instructed Mr. Enright that the pit where he was working was in a dangerous state, and that he was liable to sustain serious accident by continuing his slipshod manner of working.

Rough Ridge Coal-pit, Idaburn (including McLean's coal-pit, which is under same ownership), (Mrs. M. Beck, lessee; William Beck, manager).—(2/12/08): A reasonable area of overburden stripped in advance of working-face. Pit in fair working-order. Hydraulic lift-pump used for unwatering the pit. Small quantity of explosive used, and kept in an approved magazine.

Idaburn Coal-pit, Idaburn (J. White, lessee).—(2/12/08): Now working final block of coal to rise on boundary of adjoining lease. Attention will require to be turned to coal to dip, which, however, lies below the country water-level, and further expense will have to be incurred in plant for pumping purposes if work is to be continued.

Border Coal-pit, Rough Ridge.—(2/12/08): A new tenant named Richard Thomas is awaiting transfer of lease preparatory to reopening this pit, which, from its favourable situation, should be a convenience to the settlers in the district.

Gimmerburn Coal-pit, Gimmerburn (George Dougherty, owner).—A small quantity of coal continues to be raised for the convenience of the settlers in the district.

Donaldson's Coal-pit, Mount Highlay (W. and G. Donaldson, lessees).—Two hundred and fifty-eight tons of coal won during the year for use at the tungsten and scheelite mines.

Clyde Collieries Company, Clyde (Vincent and Dairy Creek Mines), (W. H. Ackroyd, secretary, Dunedin; G. F. Turner, mine-manager).—(25/9/08): The new dip is being driven in the town coal-seam, which is continuing good, and places are being won therefrom. Stoppings are in on the fringe of pillared area; no undue warmth observable. Ventilation fair; rules posted; plan to date.

Fraser River Coal-mine, Shepherd's Flat, Clyde.—The steam gold-dredge, for supplies to which this mine was opened, having ceased operations, there is no present demand, and the mine is closed.

Cardrona Colliery, Cardrona (R. McDougall, lessee).—As has been usual, the seam is composed of bands of hard and soft coal alternately. The workings are now in a patch of crushed coal, with indications of hard band coming in on the lower level. Operations are confined to working on the strike in a southerly direction. Some prospecting is suggested northerly, but no expenditure has been incurred there as yet.

Gibbston Coal-mine, Gibbston Saddle (Duncan and Scheib, lessees; J. Duncan, mine-manager).—(13/5/08): Mine-workings and roadways in good working-order. Ventilation good; return airway rather small in places. Report-book up to date; rules posted.

Cromwell and Bannockburn Collieries Company, Bannockburn (T. K. Harty, Managing director, Dunedin; W. R. Parcell, mine-manager).—(26/9/08): Kawarau or Shepherd's Creek Mine: A run of sand and water from roof in extreme dip-places south occurred during the early part of the year, and filled the bottom places and pillared area, which are now settled. Coal-seam to north and south of main dip having thinned to unworkable, the pillars are now being drawn outward, with a reasonable percentage of coal being won. Communication has been established with No. 4 level for second-outlet return on north side of dip. Water-percolation from surface having been successfully treated, there is no present necessity for installation of new Tangye pump procured; another satisfactory feature is that Sunday pumping, formerly imperative, is thereby enabled to be dispensed with. Ventilation fair; rules posted; reports to date.

Excelsior Mine: Operations suspended throughout the year owing to the policy adopted of concentrating workmen at Kawarau Mine. A large area of ground is standing on pillars ready for withdrawal at an opportune time. Upkeep of the mine is maintained.

Wilson's Mine: Communications having been effected with Excelsior Mine, this mine may now be conveniently combined with the Excelsior.

Cairnmuir Coal Company, Bannockburn (John Hodson, mine-manager).—(26/9/08): Dip drive being extended, and places are broken away having substantial pillars, on account of the steepness of seam, which varies from 1 in 1 to 1 in 2. Communication made with new second-outlet and air shaft on western bank of the Bannockburn Creek. Ventilation fair, and workings safely conducted. A feature of this mine is that the deposit in its extent had not been anticipated. The coal is of superior quality for the district.

Angel's Coal-pit, Bannockburn (C. Angel, licensee).—No coal got during the year.

Ryder's Coal-pit, Nevis (Charles Scott, lessee, permit).—(11/12/08): Opencast pit. In good working-order. Overburden sluiced away with water.

Nevis Coal-pit, Nevis (Charles Scott, lessee).—(10/12/08): No coal has been won from this pit during the year. A fire has broken out in an old drive in the soft-coal area. A small supply of water is available, and the overburden will be sluiced down and the fire smothered.

Ritchie's Coal-pit, Lower Nevis (Robert Ritchie, lessee).—(11/12/08): Seams semi-vertical; aggregate width over 40 ft. The top stuff is sluiced away, and the coal-seam worked opencast. In good working-order.

Upper Nevis Coal-pit, Upper Nevis (James Ritchie).—(11/12/08): Mine idle. Coal soft, and seam considerably broken.

SOUTHLAND.

Pukerau Coal-pit, Pukerau (C. O'Hagan, permit).—(29/4/08): This mine is situated on the Coal Reserve, comprising 15 acres. Workings in good order; ventilation good. Suitable magazine in use for explosives.

Nelson's Coal-pit, Pukerau (J. H. Nelson, lessee).—(29/4/08): This mine, formerly known as Dudley's, is also situated on the Pukerau Coal Reserve. Mine in good order; ventilation good.

Glover's Coal-pit, Pukerau (Thomas Glover).—(29/4/08): Opencast pit. Coal mined for private use only.

Mason's (late Glover's) Coal-pit, Pukerau (Andrew Mason).—(29/4/08): Opencast pit. Coal mined for private use only.

Otikerama Station Coal-pit (Edwards Bros.).—(29/4/08): Opencast pit. Coal mined for private use sometimes.

Mason's Coal-pit, Pukerau Road (Andrew Mason, sen.).—(29/4/08): Opencast pit. Coal mined for private use.

H. Smith's Coal-pit, Pukerau Road (Hugh Smith).—(29/4/08): Opencast pit. Coal mined for private use.

R. Smith's Coal-pit, Pukerau Road (R. Smith).—(29/4/08): Opencast pit. Coal mined for private use.

Riverview Coal-pit, Gore (L. D. Nicol, owner).—Coal continues to be raised for local use at this semi-private pit.

Whiterigg Colliery, East Gore (Paterson and Jones, owners).—(1/5/08): Abandoned. Mouth blown in, and only now remains to have the overhanging face brought down with a bar, which Jones promised to do. This pit and Heffernan's (including Resin Dip Colliery), being now under one ownership, may be all brought together in the statistics, under the name of Heffernan's Colliery.

Resin Dip Colliery, East Gore (Paterson and Jones, owners; E. Jones, permit).—(1/5/08): Driving on an outcrop on coal superior to lignite. The first dip proved to contain too much water to be coped with by small pumping plant. Magazine approved.

Heffernan's Coal-mine, East Gore (W. C. Burgess, permit).—(1/5/08): In good working-order. Powder-magazine approved.

Lignite Reserve, East Gore.—(19/12/08): A fire which had originated on the outcrop of partially worked ground had presumably become ignited by gorse-burning. I have been in communication with the Commissioner of Crown Lands, Invercargill, with a view to the tenant of grazing being required to keep the fire under. There has been no mining conducted on the area for some years.

Rosedale Coal-pit, Waikaka Valley (August Reinke, owner).—(21/2/1908): Owing to the cessation of dredging operations in the immediate neighbourhood, no coal has been mined for sale since May, 1907. The owner draws a small supply from the pit for private use.

Green's Coal-mine, Gore (Thomas Green, owner; J. Mason, mine-manager).—(10/9/1908): Mine in good working-order; roof strong and safe. Seam 17 ft., of which 10 ft. to 12 ft. worked. Rules posted, report-books kept, and plan to date. Ventilation good. Suitable magazine for storage of explosives approved.

Smyth's Coal-mine, Gore (Broome Bros. and Brown, owners; James Broome, jun., permit).—(10/9/1908): Air somewhat dull with powder-smoke, which new air-shaft being sunk should obviate. Seam 16 ft.; 10 ft. being worked. Rules posted; report-book and plan to date. New powder-magazine being erected.

Tait's Coal-mine, Bushey Park Estate, Croydon (James R. Tait and Co., owners; George Tweedie, permit).—(23/7/1908): Seam 30 ft., of which about 10 ft. is being worked out to the outcrop, which is coming in all around, the deposit apparently being purely coal. I drew attention to necessity for more timber being used at one place, where the miner was working under the lip of roof at pillar-working. Roof strong. Air good.

Boornwell Coal-mine, East Chatton (G. P. Johnston, owner; Cameron and Johnston, lessees).—(9/9/1908): Robbing of pillars and head coal in section opened now nearing completion. The new mine is now in to the coal. I found the powder-magazine in disrepair; Mr. D. Cameron subsequently wrote me that my requirements had been fulfilled.

Pacey's Freehold Coal-pit, East Chatton (T. H. Maslin, lessee; James Strachan, permit).—(9/9/1908): Mine-workings and roadways in good order. Levels driven with stentons for ventilation in proper manner. Powder-magazine in good order; proper canisters provided.

Chatton Coal-pit (late East Chatton Coal-pit), East Chatton (P. and G. Ramsay, lessees; P. Ramsay, permit).—(9/9/1908): New level driven on outcrop. Seam, 30 ft. Places driven wide and high, but apparently safe on account of the strong nature of seam. Powder-magazine required to be discovered to insure greater safety. Rules posted.

Chatton Coal-pit, Chatton (A. Beath, lessee).—(21/2/1908): Owing to difficulty of working this vertical seam it became abandoned. The coal-seam was apparently found to be too narrow to pay for working. The walls are fallen in, and the pit is in a state of collapse.

Ford's Coal-pit, Chatton (P. Ford, sen., owner).—(21/2/1908): Nothing doing on this occasion. Pit standing full of water.

Knapdale Coal-pit, Knapdale.—(21/2/1908): Apparently very little doing here now. Water risen, and standing in the main drive.

Thorndale Coal-pit, Waikaka Valley (Thomas Highsted, owner).—(21/2/1908): Some stripping has been done in preparation for mining. Operations having been conducted as far as possible to the dip for free drainage, pumping machinery is now required in order to further develop the mine.

Springfield Coal-pit, Waikaka Valley (J. P. McIntyre, owner, Gore; D. McColl, lessee, permit).—(10/9/1908): Opencast pit. Seam 15 ft., of which upper 8 ft. is worked. Stripping kept fairly well ahead of working-face. Blasting-powder stored in suitable magazine, and carefully handled.

Willowbank Coal-pit, Waikaka Valley (Edward Charles, manager).—(10/9/1908): Seam 15 ft., of which 10 ft. to 12 ft. worked. Workings safely conducted. A tendency exists, however, towards leaving pillars of smaller size than might be considered advisable for the future stability of the mine. Rules posted, and report-books to date. Suitable powder-magazine approved.

Glenlee Coal-pit, Waikaka Valley (J. McGill, owner; D. T. McGill, permit).—(9/9/1908): In opencast, stripping kept well ahead. Underground workings in good order. Seam 20 ft., 10 ft. being worked underground.

McDonald's Coal-pit, Waikaka Valley (A. A. Edge, owner; W. McIvor, permit, and G. Mitchell, lessees).—(9/9/1908): Levels driven east and west of main dip. Places taken wide and high are fallen in, while pillars are left too small for proper support. Powder-magazine has been allowed to become somewhat dilapidated. The lessee subsequently wrote me that this had been rectified. Rules posted. Report-book and plan kept.

Anderson's Coal-pit (late Radford's) Wendon (Samuel Yeomans, lessee).—(21/3/1908): The seam is perpendicular, 18 ft. in width, of which 10 ft. is won in "lifts." A cross-measures drive connects the workings with the loading-bank. Ventilation is maintained by an opening through into the opencast. Rules posted. During the summer threshing requirements and winter stock for farmers are taken from the pit, which is closed during the winter months.

Landslip Coal Company's Mine (disposed of to John Hughes, permit), *Waikaia*.—(8/9/1908): The fault having been struck necessitated falling back upon pillars to maintain output. A crush subsequently came upon the lower part of the workings, and several places became lost. Two pairs of men were engaged robbing pillars and head coal from near the bottom of dip, where a nuisance was being caused by exhaust steam from pump turned into the water lodgment, thereby creating condensation, which filled the working-places with an uncomfortable haze. This was to be rectified by shifting the pump further up the dip, and conveying exhaust steam to surface by return airway. Seam 17 ft., all being worked. Rules posted; report-book kept; plan to date.

Riverbank Colliery, Landslip, Waikaia (W. Kyle, permit, lessee).—(24/7/1908): Seam 10 ft., all being worked. Pillaring outward from the boundary on Rear's old workings. Pump driven by oil-engine underground. Travelling-way to second-outlet shaft in need of repairs. Reports of examination with safety-lamp to be entered in daily report-book. Air fair. The operations of the Te Aroha gold-dredge have played havoc with the roadway on the river-bank, which is also the roadway for ingress and egress for the coal-mine.

Waikaia Coal-mine, Landslip, Waikaia (Alexander Cain, permit, lessee).—(24/7/1908): This new mine is equipped with steam hauling-gear and steam-pump. The new dip is down 120 ft. Seam, 10 ft. Dip, 1 in 4. I cautioned the lessee that there was a tendency to drive places too wide and high for future economical recovery of pillars and head coal. (8/9/1908): Acting upon information received, I instituted proceedings against Mr. Cain for employing labour on Sunday, the 19th July, without being the holder of a permit from the Inspector as required by section 39 of "The Coal-mines Act, 1908," when Cain pleaded guilty, and was fined £1, and costs 9s.

Rossvale Coal-mine, Landslip, Waikaia (Bond Bros., owners; J. McLelland, mine-manager).—(24/7/1908): Bond Bros. having reacquired possession of the mine from Mr. A. Cain, work is continued as usual. Seam, 10 ft. Roof strong, and all places standing well, with minimum of timber used. Air good, and well conducted to faces by brattice. Second-outlet and air shafts (two) in good order; windlass and rope provided. Copy of General Rules (new issue) required to be posted. Main level driven unreasonably wide (18 ft.) for advantageous future recovery of pillar-coal. Locked magazine approved.

Muddy Terrace (late Goldie's) Coal and Shale Pit, Muddy Terrace, Waikaia (Knuckey and Junker, lessees; F. A. Junker, permit).—(8/9/1908): Rules posted. Seam 14 ft., including 10 ft. of shale of good quality. Seam improves in quality towards dip workings, which are, however, at present filled with water. Engine and pumping plant expected shortly. Places safely worked; drives not too wide, and good pillars left in. Air good.

Argyle Coal-pit, Upper Waikaia (C. H. Hutton).—This pit continues to be worked on a small scale.

Mataura Coal-mine, Mataura (Mataura Collieries (Limited), owners; J. A. Yule, secretary, Gore).—(23/7/1908): Coal-seam 7 ft. Stripping, 8 ft. to 10 ft., is kept well ahead of the working-face. A contract has been let for production of coal, with which good headway is being made. It is intended to get the coal in future by underground mining. Suitable magazines for storage of explosives approved.

Mataura Lignite-pit, Mataura (Beattie, Coster, and Co., owners; W. Coster, manager).—(23/7/1908): Opencast pit, systematically worked by keeping stripping well ahead of working-face. Seam, 10 ft. to 20 ft. Stripping, 10 ft. of gravel, which is removed by horse-power with plough and scoop. Magazine for storage of explosives approved.

Boghead Coal-pit, Mataura (C. P. Sleeman and Co., owners; C. P. Sleeman, jun., manager).—(23/7/1908): This pit, after standing idle for some time, was unwatered during the early part of the year under new proprietary. Seam, 12 ft. to 20 ft., of which 12 ft. being worked. Stripping, 10 ft. Powder-magazine approved.

Waimumu Colliery Company, Waimumu (Waimumu Colliery Company, owners; J. Wallace, permit).—(23/7/1908): Two men engaged in the upper seam drawing pillars from boundary outward. The seam is worked to water-free level only. A lower seam of 6 ft. is underfoot. Rules posted. Report-book kept. Powder-magazine approved.

Ota Creek Coal-pit, Ota Creek (James E. Genge, owner).—Opencast pit, from which an output of 500 tons was obtained during the year.

Clarke's Coal-pit, Wyndham (Samuel Clarke, owner).—(24/10/1908): Opencast seam, 10 ft., all worked. Stripping kept well in advance of working-face. Only a small quantity of blasting-powder kept on hand, and it is obtained for use as required from the local public magazine.

Ferry Road Coal-pit, Wyndham (B. Sutherland).—(24/10/1908): Opencast pit; apparently abandoned, as pit standing full of water, although some of the machinery is still on the ground.

Robin Hood Coal-pit, Pine Bush (William Couser, manager; Jessie Couser, owner).—Opencast pit. During the year 179 tons of coal was produced.

Graham's Coal-pit, Fairfax (P. S. Graham, owner).—(16/11/1908): Seam, 6 ft. Work consists of coming back on the low side of level pillar. Place safely timbered to face. Ventilation could be improved by restoration of return airway. Owner explained that the air was always good, or he would provide a fresh airway.

Ardlowie Coal-pit, Fairfax (Edward Poole, owner).—(16/11/1908): Opencast pit. A small quantity of coal being taken out for local requirements.

Fairfax Coal-pit, Fairfax (Donald McIntosh, owner).—(16/11/1908): A small opencast pit on the Ringway Estate, which was known as McMinamin's. Very little work done here lately.

Smith's Coal-mine (Spreybank No. 2) Fairfax (William Smith).—(16/11/1908): Seam 3 ft., with band of stone making; too thin to pay for working. Abandoned.

Blackmount Coal-pit, Loudon Hill, Bellmount (P. Studholme, owner).—(19/11/1908): Seam 5 ft., in coal of Nightcaps seam quality, dipping 1 in 4 westerly. Cross-measures drive from daylight, and level southerly driven about half a chain. Timbering correctly done to face.

Redcliff Station Coal-pit, Redcliff, Otautau (Helder and Awdry, proprietors).—(20/11/1908) : Some prospecting has been done on the face of a high terrace, exposing several thin seams, but of a non-paying character.

Te Anau Coal-pit, Upukarora, Te Anau Downs (Tourist and Health Resorts Department, owner ; Captain Dore, agent, Manapouri).—(21/11/1908) : Opencast pit on terrace above banks of Upukarora River. Seam, 7 ft. Stripping, 8 ft. to 10 ft., overhanging in places, clearly indicating undermining, an unsafe manner of working the pit, and hand-to-mouth, as it were, as might be expected by the system in vogue of annual competitive contracting for getting the coal. In the interests of the lake-steamer traffic, and as this is the only coal-pit convenient, it would appear to be worthy of being placed on a more workmanlike and permanent basis. There is no plant on the ground. The pit is easily capable of being conducted in a satisfactory manner. I subsequently wrote Captain Dore, Tourist Agent, Manapouri, as to the condition of the pit.

Beer's Coal-pit, The Key (Mrs. T. Beer, lessee).—(21/11/1908) : Opencast pit, situated on a branch of Princester Creek at the foot of Waterloo Peak, Takatimo. The coal-seam occurs on a spur of the mountain in slip country, is troubled, and averages 6 ft. Stripping, 10 ft. to 20 ft., removed by water brought in under pressure. Dip irregular, erratic.

Mount Linton Coal-pit, Mount Linton, Nightcaps (W. J. A. McGregor, owner).—(17/12/1908) : An old pit. Outcrop of coal is seen in the bed of Morley Stream. Some further prospecting done recently, but coal in quantity not now being got here. Seam apparently below water-level.

Nightcaps Colliery, Nightcaps (Nightcaps Coal Company (Limited), owners ; William Handyside, managing director, Invercargill ; W. Barclay, mine-manager).—(18/12/1908) : Work proceeded much as usual throughout the year. The advantages of the system of development set out some years ago are now more readily perceivable, the boundaries having been reached, and working homeward on pillars and head coal, of which it is estimated that about 85 per cent. is being won. No. 1 district : Ventilation, 18,000 cub. ft. of air per minute at intake. Dips are driven to the fault, and places won, subsequently coming back on robbing-work. On the rise section double and treble stoppings are in on the fringe of the gob where heating occurred ; in other places the roof is brought down and the breaks kept close up to the workings, for greater security of workmen. Ample timber is continually used, and large supplies kept on the premises. Similar conditions prevail in the No. 2 district, which is ventilated by fan separately from No. 1 district. The underground workings and machinery, also surface plant and loading-bank arrangements, are maintained in good order. The opencast workings continue to furnish a considerable proportion of output from the colliery. Rules posted, report-book kept, plan to date, and requirements of the Act generally well observed. Separate magazines are provided for storage of explosives. Samples of mine-air were collected and submitted to the Government Analyst, whose report showed that he was unable to detect firedamp in the samples forwarded.

Hit or Miss Coal-pit, Nightcaps (William Tinker, lessee, permit).—(23/10/08) : Seam 7 ft., all worked. Places well secured with timber. Air good. Steam-pump required to drain water and enable coal being worked to dip. Report-book and copy of Act kept. Rules being posted.

Lamont's Coal-mine (H. B.), Nightcaps (G. R. Spence, lessee, permit).—(23/10/08) : Seam 7 ft., all worked. Drive on boundary workings securely timbered.

The Willow Coal-pit, Nightcaps (John Clark, lessee).—(17/12/08) : Opencast pit. Stripping well ahead of working-face.

New Brighton Coal-mine, Wairio, Nightcaps (D. McKenzie and Co., owners ; D. McKenzie, permit).—(17/12/08) : Seam 17 ft., all being worked by driving and stripping. The mine is situated on the 40-acre section held by William Reed, jun. William Reed's 10-acre section is not at present being worked. McBride's area is practically worked out to the rise, only coal for owner's private use now being got.

Wairio Coal-mine (lately Manuka Hill), Nightcaps (Wairio Coal Company, owners ; J. Lewis, permit, manager).—(17/12/08) : Opencast working suspended, and now driving in the coal. Roof strong ; ventilation good ; seam 17 ft. 10 ft. now being worked.

Timpany and Co. had prospected by boring on an area at Wairio held under prospecting license. Results are stated to have been unsatisfactory.

Wildbush Coal-mine, Riverton (William Smith, lessee ; J. Armstrong, owner).—(29/7/08) : Opencast pit. The pit looks as though some 1,000 tons had been taken out some years ago for disposal locally. Seam 11 ft. Stripping of clay, from 3 ft. to 6 ft. overburden. A tram-line has been made 40 chains to the wharf on Pourukino River, and the coal is to be barged to Riverton, two miles and a half distant. A borehole is said to have been put down 800 ft. on the property by Messrs. Anderson, and a seam of coal struck, but further particulars are not available.

Bush Siding Coal-pit, Seaward Bush (F. R. Bowden, manager).—A regular output continues to be maintained.

REMARKS.

Samples of mine-air taken from Kaitangata, Nightcaps, and other mines have been analysed by the Government Analyst, to the great advantage of all concerned.

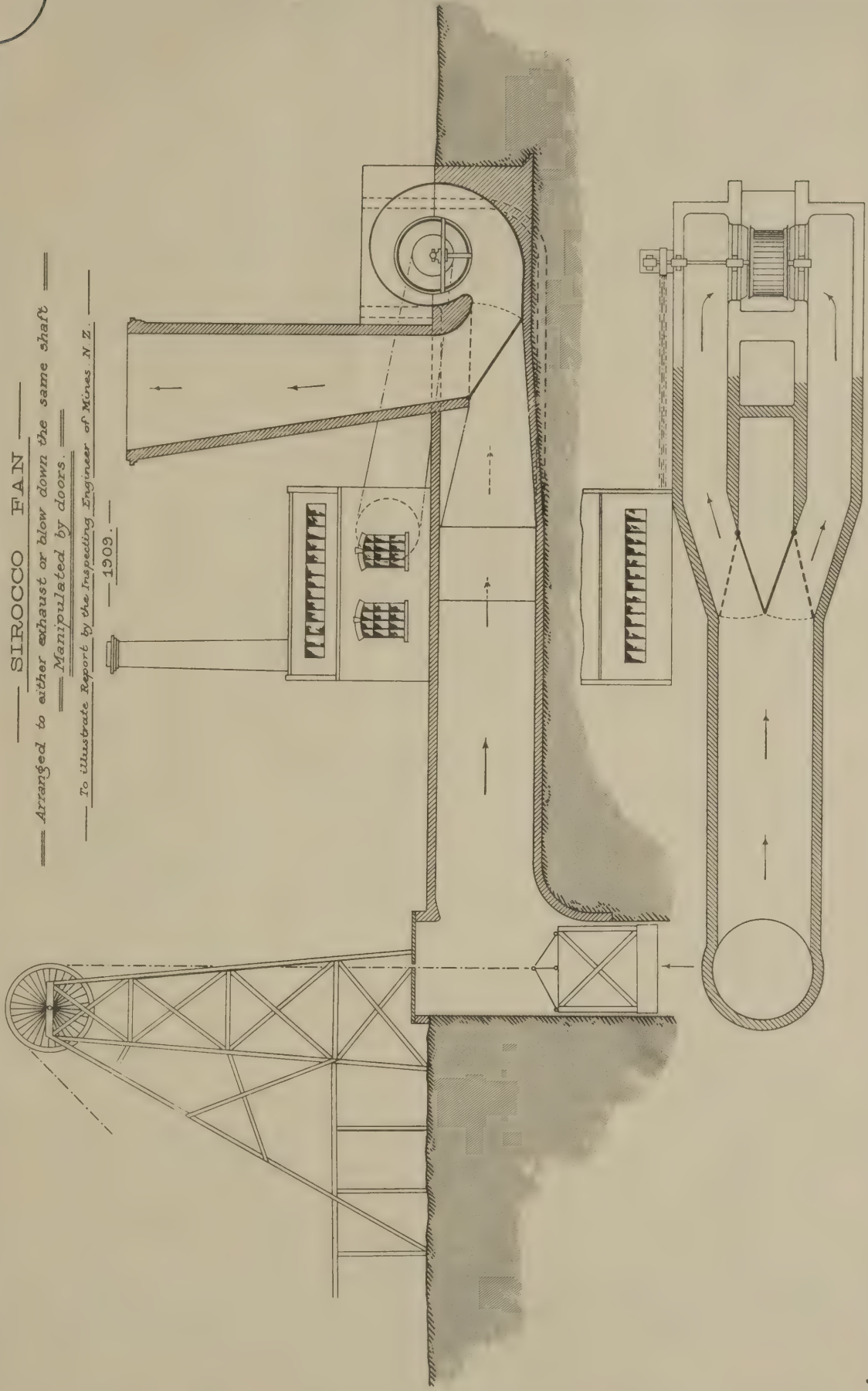
Ambulance stretchers and kits under the St. John's Ambulance Association continue to be maintained at Kaitangata, Castle Hill, Nightcaps, Allandale, and Green Island Mines, at which centres coal-workers, under medical tuition, have regularly qualified for rendering first aid to the injured.

A set of Vajen-Bader rescue-apparatus is kept at Kaitangata Mine, but experiments with same are not popular.

SIROCCO FAN

Arranged to either exhaust or blow down the same shaft
Manipulated by doors.

To illustrate Report by the Inspecting Engineer of Minas N Z.
— 1909. —



C.H.P. del.

Summary of Non-fatal (Serious) Accidents on the Southern Coalfields during 1908 classified.

					Number of Separate Non-fatal Accidents.	Number of Per- sons injured.
Explosions of firedamp	..	..	..	..	1	3
Falls in mine	..	..	..	..	..	..
Shaft accidents	..	..	..	..	..	..
Miscellaneous—						
Underground	..	..	..	..	1	1
On surface	..	..	..	..	1	..
Totals	..	..	..	..	2	4

PROSECUTIONS.

Proceedings were taken in the Magistrate's Court on two occasions, and fines imposed in each case :—

1. Alexander Cain, mine-owner, Waikaia, was charged with employing men on Sunday, 19th July, 1908, he not being the holder of a permit from the Inspector, and on pleading guilty was fined £1, and costs.

2. Alexander S. Gillanders, mine-manager, Freeman's Colliery, Abbotsford, was fined £5, and costs £2 9s., for inadequate ventilation of working-places on the 29th December, 1908.

I have, &c.,

E. R. GREEN,

Inspector of Mines.

ANNEXURE B.

PAPERS SET AT THE 1909 MINE-MANAGERS' EXAMINATION.

EXAMINATION OF CANDIDATES FOR FIRST-CLASS CERTIFICATES OF COMPETENCY.

SUBJECT 1.—*Prospecting, Shaft-sinking, Tunnelling, and Opening out a Colliery.*

1. If Carboniferous rocks were found dipping under more recent geological formations, state in detail what measures you would adopt to determine the existence of workable seams of coal to the best advantage.

2. Describe the necessary plant and appliances, and how you would operate same, to sink a pair of shafts, 80 yards apart, to a depth of 1,700 ft., with a feeder of water of 300 gallons per minute following the sinking down to 1,450 ft.

3. A pair of shafts having been sunk 1,500 ft. to a seam of coal dipping 1 in 6, with soft floor and fairly hard roof, describe and also show by sketches how you would proceed to open out the colliery for an output of 1,200 tons per day of eight hours.

4. Describe, and show by sketches, the modern equipment of a mine with respect to drainage, haulage, winding, and screening, for a large output.

SUBJECT 2.—*Working Coal and timbering underground.*

1. Describe, and illustrate by sketches, the bord-and-pillar, double-stall, longwall working out, also working home, systems of coal-winning, and explain the conditions under which any one of these systems would be the better to adopt.

2. Explain the causes of "creeps" and "thrusts," and give sketches illustrating the effect of same; also state the anticipatory measures you would adopt to prevent their occurrence.

3. Describe, and show by sketches, the different methods of coal-hewing with which you are acquainted, and the methods of timbering the working-places. Explain the dangers to be guarded against, with special reference to pillar extraction.

4. If you had to take out some bars in a main road to increase the height where the weight of roof upon them is very heavy, explain and show by sketches how you would do it.

SUBJECT No. 3.—*Gases of Mines, Spontaneous Combustion, and Ventilation.*

1. Describe the properties of oxygen and nitrogen gases, give the specific gravity of each, and state what effect nitrogen has on the oxygen of the atmosphere.
2. Enumerate the gases met with in mining and the causes of their generation, give their specific gravities, and state what means you would adopt to remove such gases.
3. What are the causes of spontaneous combustion, and what are the principal dangers resulting from underground fires, and what steps would you take to obviate such?
4. If a large accumulation of explosive gas should be met with in a mine where furnace ventilation is applied without a dumb drift, what would you do to remove the gas?
5. A steam-jet and fan acting together on an upcast shaft produce 80,000 cubic feet of air per minute. When the fan is stopped the jet produces 16,000 cubic feet. What quantity would the fan running alone give?
6. Ventilate the annexed plan, showing stoppings, air-currents, air-crossings, canvas doors, bratticing, doors, and regulators.
7. There are two airways: the first is 10 ft. square, the second 8 ft. by 5 ft. The same quantity of air has to be passed in each airway. The water-gauge in the first is 0·8. What will be the water-gauge in the second airway?

SUBJECT 4.—*Dealing with Old Workings and other Sources of Danger.*

1. In reopening a large area of old workings, one section to the dip and one to the rise, which have been standing sealed off for some time, what measures would you adopt?
2. How would you deal with a spontaneous outbreak of fire in a heavily fallen goaf adjacent to active workings?
3. The greatest percentage of accidents in mining occur from falls of roof and sides: what are your views with regard to still further minimising such accidents?
4. What is a "missed shot" and a "blown-out shot," and what accidents are liable to arise from the use of explosives?
5. Describe what measures you would adopt for general safety in working seams of coal under tidal waters?

SUBJECT 5.—*Steam Boilers and Engines used about Mines.*

1. Describe the purposes of the following steam-boiler appliances: viz., steam-gauge, water-gauge, safety-valve, blow-off tap, manhole, damper; also, explain the principle of the Bourdon steam-gauge.
2. Enumerate the necessary precautions to be observed in operating steam boilers and engines, to avoid accidents; and state what steps you would take to have them effectively carried out.
3. The air-cylinder of a compressor is 36 in. diameter and 6 ft. stroke, double-acting, and working at 30 strokes per minute the air is compressed to 60 lb. per square inch above the atmosphere: how many cubic feet of air should be delivered per hour, assuming the atmospheric pressure at 15 lb. per square inch?

SUBJECT 6.—*On Mine-drainage, Haulage, and Appliances for same.*

1. What size steam-cylinders, also pump-rams, double-acting, would be required to deliver 1,000 gallons per minute against a head of 100 fathoms? Effective steam-pressure 60 lb. per square inch, and speed of rams 180 ft. per minute.
2. From a main haulage-way there are two haulage-roads branching off right and left. Describe, and show by sketches, how you would arrange the junction for dealing with a large output. Endless rope is the method of haulage.
3. A pair of winding-engines have cylinders 40 in. diameter and 6 ft. stroke; steam-pressure, 100 lb. per square inch. How many revolutions per minute will they be running when developing 1,200 horse-power?
4. In a mine with shafts 600 ft. deep it is proposed to instal endless-rope haulage: describe in detail and illustrate by sketches how you would carry out the work.
5. Describe the various systems of underground haulage, and point out the distinctive features of each; also sketch in detail the appliances of a balance jig in a steep seam.
6. Show by sketch how you would fix a 10 in. column of pipes in a shaft 500 ft. deep.
7. Enumerate what precautions and appliances you would adopt to reduce machinery accidents in shafts to a minimum.

SUBJECT 7.—*Geology, Surveying, and Making Plans.*

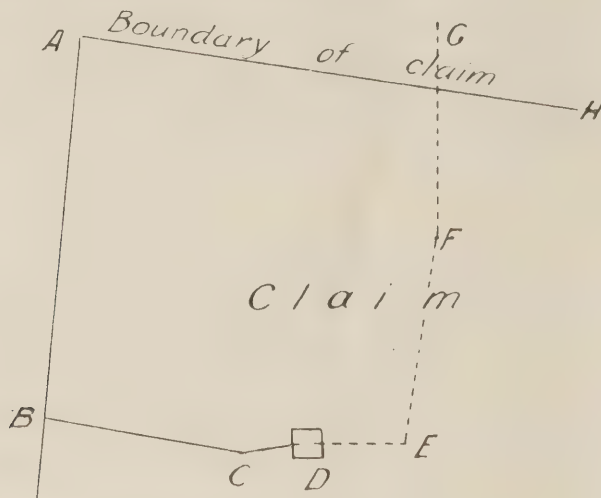
1. Give a brief description of any coalfield with which you are familiar, giving especial attention to the following points:—

- (a.) Extent of the seam.
- (b.) Inclination of the seam.
- (c.) Faults, if any.
- (d.) Nature of rocks overlying and underlying.
- (e.) Character of the coal.

2. Define the following terms:—

Anticline, overthrust fault, overlap, stratification, cleavage, jointing.

3. From the plan and particulars given below compute how many feet the working-face at G has encroached upon the adjoining claim, and what distance along the northern boundary from the corner of the claim marked A the working crosses the boundary.



Surface Traverse—

			Bearing.	Distance.
AB	...	...	182° 37'	1017 links.
BC	...	...	96° 48'	503 "
CD	...	...	77° 32'	175 "

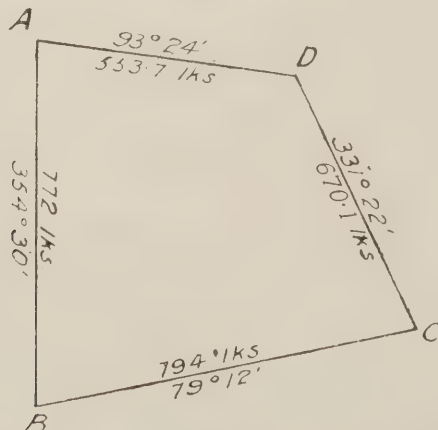
Underground Workings—

DE	...	...	89° 56'	174 feet.
EF	...	...	7° 26'	384 "
FG	...	...	356° 28'	259 "
AH	...	...	96° 0'	...

4. The underground workings of a mine are enclosed within the figure below, the co-ordinates from A being as follows:—

			S.	E.
A	...	...	0° 0'	0° 0'
B	...	...	768° 4'	74° 0'
C	...	...	619° 7'	853° 9'
D	...	...	31° 6'	532° 8'

Required the area in acres contained within the figure.



5. Compute the cubic contents of an ore-dump 27 ft. 6 in. by 16 ft. 9 in. at base, 18 ft. 4 in. by 7 ft. 5 in. at top, and 4 ft. 9 in. high; and how would you ascertain the approximate tonnage?

SUBJECT 8.—*Practical Elementary Electricity.*

1. In the application of electricity to mining, what dangers have to be guarded against, and what precautions are adopted to avoid same?
2. What is induction in electrical transmission, and the causes of same?
3. Describe a system of electric signalling in mines, and explain the causes which enable it to operate.
4. Give the definition of the following electrical terms :—
 - (a.) E.M.F.
 - (b.) Ampere.
 - (c.) Volt.
 - (d.) Ohm.
 - (e.) Switch.
 - (f.) Cut-out.
5. Describe the action of a continuous-current dynamo.
6. How is E.M.F. transmitted to operate machinery underground?
7. What is the horse-power of a dynamo developing 120 amperes at 220 volts?
8. If the E.M.F. in a circuit is 90 volts, and electricity is flowing round at the rate of 45 amperes, what is the total resistance of the current?

SUBJECT 9. — *Arithmetic, and a Knowledge of "The Coal-mines Act, 1908," and Amendments ; also, First Aid to the Injured.*

1. A quantity of coal is standing in wagons ready for shipment; $\frac{1}{5}$ of it is owned by A colliery, $\frac{2}{3}$ by B, $\frac{1}{3}$ by C, $\frac{1}{15}$ by D, $\frac{1}{15}$ by E, and the remainder, which is 290 tons, by F: find the total quantity owned by each mine.
2. The daily output of a mine is 1,500 tons, 38 per cent. of which is small coal; 28 per cent. of the small is utilised for coke-making, yielding 65 per cent. of coke; the large coal is sold at 9s. 6d. per ton, the uncoked small at 3s. 9d. per ton, and the coke at 24s. 6d. per ton: what is the gross return upon a day's output?
3. A district of pillars measures 46 chains by 28 chains: how many tons of coal are contained therein if the seam be 7 ft. 6 in. high and 60 per cent. of the coal has been won? 30 cubic feet equal 1 ton.
4. A triangular reservoir, the sides of which are 8 chains, 6.75 chains, and 7.5 chains respectively, is filled with water to a depth of 15 ft.: how many gallons does it contain?
5. Twenty-four yards of roof in a 6-yard bord are brushed 6 ft. wide by 2 ft. high at the rate of 5s. per fathom: how many cubic yards of brushing are done, and what is the cost of same per ton of coal won? The seam is 4 ft. 6 in. high, and yields 1 ton to each 30 cubic feet.
6. Briefly state the requirements of "The Coal-mines Act, 1908," and its amendments, as to—
 - (a.) Ventilation.
 - (b.) Special rules.
 - (c.) Accidents in mines.
 - (d.) Persons employed in mines.
 - (e.) Ropes and chains.
 - (f.) Gunpowder and blasting.
 - (g.) Examination of mines.
7. State what ambulance training you have had, and what appliances should be kept in and about mines in case of accidents.
8. Describe how you would render first aid to a workman with a broken thigh.
9. Explain first-aid treatment and how you would act in cases of arterial bleeding, venous bleeding, and scalding.

EXAMINATION FOR SECOND-CLASS CERTIFICATES.

SUBJECT 1.—*Prospecting, Shaft-sinking, Tunnelling, and Opening out a Colliery.*

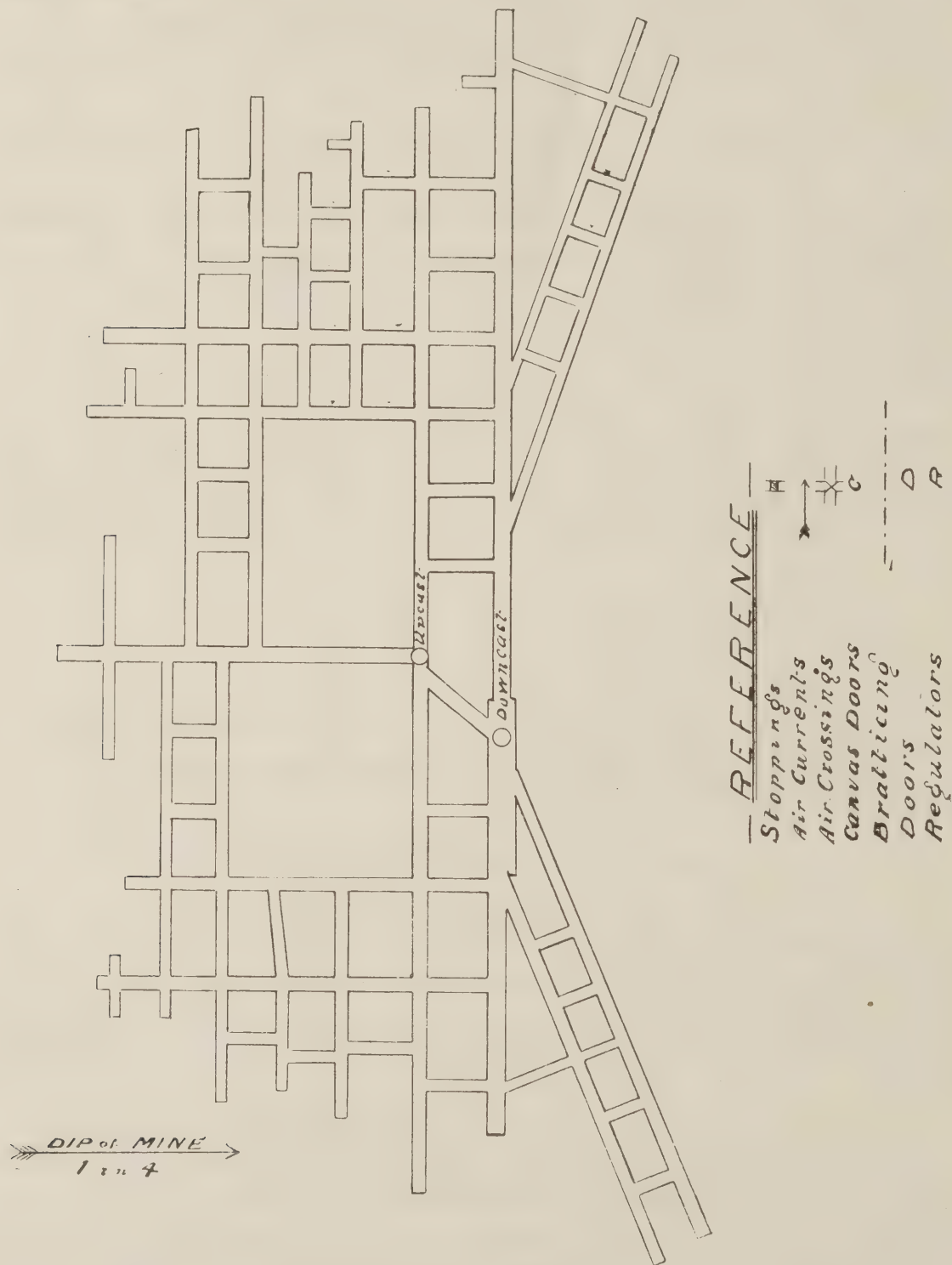
1. In prospecting a coalfield with no outcrops, what measures would you adopt to prove the seams?
2. Were you controlling sinking operations in a shaft, to what particular duties would you pay special attention?
3. Having sunk two shafts to a seam of coal, show by sketch how you would arrange your shaft-pillars, and state how you would ventilate your headings until the connection made between the shafts.

SUBJECT 2.—*Working of Coal and timbering underground.*

1. Describe the different systems of working coal, and show by sketches the methods of securing working-faces.
2. In driving a winning-place a soft dyke 15 ft. thick is met with: explain how you would secure this place permanently.
3. Describe how you would secure permanently a shaft siding 18 ft. by 8 ft. Give your ideas of the sizes of the material to be used.
4. How would you extract pillars, with a moderately soft roof, at a depth of 500 ft.?

SUBJECT 3.—*Gases of Mines, Spontaneous Combustion, and Ventilation.*

1. Name the gases usually met with in coal-mines, with their respective peculiarities.
2. In securing adequate ventilation in a very gaseous mine, what are the chief points for consideration?
3. What are the indications of spontaneous combustion; and, having found a fire resulting from such in a disused part of the mine, how would you deal with it, the safety of the men engaged at the work having the first consideration?
4. Ventilate the attached plan, using the reference signs thereon to indicate your method.
5. What steps would you take if you were in charge of a working-district giving off gas and a sudden stoppage of the air-current took place?
6. If the anemometer registered 350 revolutions per minute in an airway 12 ft. by 7 ft., what total quantity of air would be passing?
7. What are the advantages of splitting air-currents, and, in your opinion, what is the best way of doing so?



SUBJECT 4.—*Dealing with Old Workings and other Sources of Danger.*

1. What precautions would you take in approaching old workings which may contain gas and water under high pressure?
2. If there were indications of creep over a section of the workings, how would you proceed to check it and secure safety to the miners?
3. What provision would you make to guard against fires in a dry and dusty mine in which naked lights are used?
4. What measures would you adopt to guard against blown-out shots, and what great danger is to be apprehended from such shots?
5. What explosives would you use, and what regulations would you enforce, when firing shots in a seam of coal that gives off explosive gas and is dusty also?
6. What is the effect of sediment, or incrustation, forming in a steam-boiler, and what damage is likely to result therefrom?

SUBJECT 5.—*Mine Drainage and Haulage, and Appliances for same.*

1. Explain the action and working of a ram pump, and mention some of the advantages attaching to its use.
2. Describe the various motive powers for driving pumps underground, and explain the method of their application.
3. What is the difference between the main- and tail-rope system and the endless-rope system of haulage? Give a sketch showing an arrangement for taking up slack rope in connection with the latter system.
4. Sketch and describe types of automatic points and self-acting chocks for self-acting inclines.
5. Describe, and show by sketch, the appliances you would erect to lower 300 tons of coal in eight hours down an incline 12 chains long, with a grade of 1 in 6.

SUBJECT 6.—*Practical Elementary Electricity.*

1. Enumerate the various applications of electricity to mining.
2. Explain, as detailed as you can, a chemical battery, such as is used for producing electricity for signalling purposes.
3. Describe the application of electricity to shot-firing.
4. What do you understand by the terms "volt" and "ampere"?

SUBJECT 7.—*Arithmetic, and a Knowledge of "The Coal-mines Act, 1908," and its Amendments; also, First Aid to the Injured.*

1. For a fortnight's work two men get 165 tons 10 cwt. at 1s. 11d. per ton, $12\frac{1}{4}$ yards at 4s. per yard, and truck ninety-eight tubs at 2s. 9d. per score: what amount is due to them?
2. How many bricks would be required to put in twelve stoppings 9 in. thick, average size of each opening 9 ft. by 6 ft.?
3. An airway is half a mile long, 7 ft. high, and 10 ft. wide: what is the rubbing-surface in square feet?
4. How many gallons will a water-tank hold whose diameter is 4 ft. and depth 8 ft.?
5. How many 7-yard rails, weighing 30 lb. to the yard, would it take to lay a double tramway in a main road 1 mile 2 ch. 16 yd. long, and what would be the cost of rails at £8 per ton?
6. Briefly state the requirements of the Coal-mines Act and amendments as to—
 - (a.) Ventilation.
 - (b.) Examination of mine.
 - (c.) Mines liable to flood.
 - (d.) Signalling.
 - (e.) Securing of shafts.
 - (f.) Gunpowder and blasting.

First Aid.

1. What experience have you had in ambulance-work?
2. How would you render first aid to a workman with a compound fracture of a leg?
3. How would you treat a person with injured hand, the fingers cut and bleeding profusely?
4. What treatment would you give a workman scalded by steam?

LIST OF PERSONS WHO HAVE OBTAINED CERTIFICATES AS MINE-MANAGERS UNDER THE COAL MINES ACTS.

FIRST-CLASS MINE-MANAGERS' CERTIFICATES.

Issued under the Coal-mines Acts, 1886 and 1891.

Aitken, T., Wendon.	Gray, J., Abbotsford.	*Redshaw, W., Whangarei.
Alexander, T., Brunnerton.	*Harrison, J., Brunnerton.	Reed, F., Westport.
Austin, J., Sheffield.	Irving, J., Kaitangata.	*Richardson, D., Abbotsford.
Binns, G. J., Dunedin.	Jemison, W., Waimangaroa.	Shore, J., Kaitangata.
Bishop, J., Brunnerton.	Kenyon, J., Shag Point.	Shore, T., Orepuki.
*Brown, T., Westport.	Kerr, G., Kamo.	*Shore, W. M., Kaitangata.
Brown, T., Glentunnel.	Lindsay, W., Otago.	*Smart, W., Christchurch.
Cameron, J., Denniston.	Lloyd, J., Invercargill.	Smith, A. E., Nelson.
Campbell, J. C., Fairfield.	*Louden, J., Green Island.	Smith, T. F., Nelson.
Cochrane, N. D., Dunedin.	Love, A., Whangarei.	Sneddon, J., Mosgiel.
Collins, W., Taupiri.	Mason, J., Nightcaps.	Swinbanks, J., Kawakawa.
Dando, M., Brunnerton.	May, J., Greymouth.	Taylor, E. B., Huntly.
*Elliott, R., Wallsend.	Moody, T. P., Kawakawa.	Thompson, A., White Cliffs.
Ferguson, A., White Cliffs.	Moore, W. J., Springfield.	Walker, J., Collingwood.
*Freeman, J., Green Island.	Nelson, J., Green Island.	Williams, W. H., Shag Point.
*Geary, J., Kamo.	Ord, J., Huntly.	

First-class Certificates issued under the Coal-mines Acts, 1886, 1891, and 1905, after Examination.

Armitage, F. W., Auckland.	Fletcher, James, Granity.	McCormack, W., Denniston.
Armstrong, J., Brunnerton.	Fry, Sydney, Waimangaroa.	McEwan, Robert, Coromandel.
Barclay, T., Kaitangata.	Gibson, John, Westport.	McGeachie, J., Mokau.
Barclay, W., Kaitangata.	Gillanders, A., Shag Point.	Milligan, N., Westport.
Bennie, Boyd, Waihi.	Gowans, W., Millerton.	Morgan, Wm., Waihi.
Brown, J. C., Denniston.	Green, E. R., Abbotsford.	Murray, T., Westport.
Campbell, Peter, Fairfield.	Green, J., Brunnerton.	*Newsome, F., Denniston.
Carruthers, J., Shag Point.	Hamilton, J. S., Burnett's Face.	Newton, James, Brunnerton.
Carson, W., Kaitangata.	Herd, J., Brunnerton.	Shore, Joseph, Kaitangata.
Coombe, J., Waihi.	Hill, Robert, Abbotsford.	Smith, George, Fairfield.
Coulthard, J., Taylorville.	Hosking, G. F., Auckland.	Sowerby, H., Denniston.
Dixon, C. W., Granity.	*Hughes, D., Preservation Inlet.	Tattley, E. W., Huntly.
Dixon, W., jun., Kaitangata.	Jebson, D., Canterbury.	Tattley, F. J., Mercer.
Duggan, George, Burnett's Face.	Johnson, W. P., Thames.	Taylor, A. H., Waikato.
Dunn, Andrew, Denniston.	Leitch, J., Blackball.	Thomson, Thomas, Denniston.
Dunn, W., Brunnerton.	Leitch, W., Blackball.	Turner, G. F., Shag Point.
Dunn, W. R., Thames.	Marshall, A. G., Denniston.	Westfield, C. H., Fairfield.
Elliott, R., jun., Denniston.	McCaffrey, Patrick, Ferntown.	Young, James H., Waimangaroa.
Fleming, J., Kaitangata.		

Mine-managers' Certificates, issued under "The Coal-mines Act, 1886," on Production of English Certificate.

Binns, G. J., Dunedin.	*Garrett, J. H., Auckland.	Macalister, J., Invercargill.
Black, T. H., Waipori.	Hayes, J., Kaitangata.	*Nimmo, J., Oamaru.
Broome, G. H., Ngakawau.	Hodgson, J. W., Ross.	*Straw, M., Westport.
Cater, T., Auckland.	*Lindop, A. B., Springfield.	Tattley, W., Auckland.
Cochrane, N. D., Dunedin.		

First-class Mine-managers' Certificates, issued to Inspectors of Mines by virtue of Office, under the Coal-mines Acts of 1886 and 1891.

*Coutts, J., Thames.	*Gow, J., Dunedin.	*Wilson, G., Thames.
Gordon, H. A., Wellington.	McLaren, J. M., Thames.	

*Mine-managers' Certificates, issued under the Coal-mines Acts of 1891 and 1905, on Production of Certificate from a recognised Authority outside the Dominion.**First Class.*

Alison, R., Greymouth.	James, Isaac Angelo, Westport.	*Scott, Joseph, Ngahere.
Dixon, J., Westport.	*Jordan, R. S., Kaitangata.	Tennent, R., Brunnerton.
Fletcher, George, Westport.	Kirkwood, D., Coromandel.	Twining, C. E., Dunedin.
Frame, Joseph, Kaitangata.	Lewis, W., Blackball.	Watson, James, Greymouth.
Goold, A. L., Auckland.	Pollock, James, Green Island, Otago.	Wight, E. S., Auckland.
Irvine, James, Dunedin.	*Proud, Joseph, Wanganui.	Wood, William, Mokihinui.

Second Class.

Dickinson, W., Gore.	Inglis, A., Huntly.	Longstaff, H. C., Kaitangata.
Dowgray, R., Granity.	Lennox, W., Springfield.	McCall, John, Wellington.
Greenwell, R., Huntly.	Little, W., Wellington.	McGeachie, J., jun., Mokau.
Grenall, S., Granity.	Littlewood, G. G., Denniston.	

SECOND-CLASS MINE-MANAGERS' SERVICE CERTIFICATES.

Issued under "The Coal-mines Act, 1891."

Carson, M., Kaitangata.	Love, Alexander, Orepuki.	*Ross, John, Kawakawa.
Collier, Levi, Kamo.	McIntosh, Allan, Shag Point.	Sara, James, Reefton.
Clarke, Edward, Shag Point.	McLaren, J. M., Thames.	Smith, Charles, Whangarei.
Elliot, Joseph, Coal Creek.	Marshall, J., Ngakawau.	Thomas, James, Springfield.
Harris, John, Denniston.	Murray, Thomas, Denniston.	Wallace, William, Huntly.
Herd, Joseph, Brunnerton.	*Nimmo, George Stewart, Ngapara.	Willetts, John, Papakaio.
Howie, James, Kaitangata.	Radcliffe, William, Reefton.	*Willetts, John Morris, Papakaio.
Leeming, William, White Cliffs.	*Roberts, John, Brunnerton.	Young, William, Waimangaroa.
Lobb, Joseph, Mokau.		

* Deceased since issue of certificates.

Second-class Certificates issued under the Coal-mines Acts, 1886, 1891, 1905, and 1908, after Examination.

Austin, W. B., Sheffield.	Doel, G., Lovell's Flat.	McLelland, A. C., Kaitangata.
Barber, John, Shag Point.	Duncan, James, Kaitangata.	McNeill, D., Fairfield.
Barclay, T., Kaitangata.	Duncan, J. E., Kaitangata.	Mills, Walter, Huntly.
Barclay, T., jun., Kaitangata.	Duncan, John, Lovell's Flat.	Neilson, Moffat, Abbotsford.
Barclay, Wm., Kaitangata.	Fox, R. A., Blackball.	Ogilvie, W. W., Saddle Hill.
Barnes, A. E., Shag Point.	Harris, A., Saddle Hill.	Orr, Hugh, Fairfield.
Brown, Robert, Kaitangata.	Heycock, C. R., Nightcaps.	Parcell, W., jun., Bannockburn.
Cadman, J., Hikurangi.	Hill, R., Abbotsford.	Penman, C. P., Kaitangata.
Campbell, Peter, Fairfield.	Hodson, John, Kaitangata.	Price, F. J., Burnett's Face.
Carruthers, J., jun., Nightcaps.	Holden, J., Nightcaps.	Scoble, E. J., Blackball.
Charles, E., Glentunnel.	Hunter, A., Southland.	Snow, T., Mercer.
Cherrie, R. C., Mokau.	Kells, F. H., Denniston.	Tattley, F. J., Mercer.
Christie, James, Saddle Hill.	Lewis, David, Puponga.	Taylor, Joseph, Collingwood.
Clemo, G., Whangarei.	Lewis, J., Nightcaps.	Thompson, Joseph, Blackball.
Craig, John, Coal Creek Flat.	Lindsay, J. B., Orepuki.	Waldie, A. B., Mokau.
Dale, E. G., Kaitangata.	McAllister, Neil, Kaitangata.	Westfield, C., Fairfield, Otago.
Dixon, W., jun., Kaitangata.	McLelland, J., Kaitangata.	Whittleston, A. W., Shag Point

ANNEXURE C.

STATISTICS OF WORKINGS IN COAL-MINES, 1908.

Name of Mine and Locality.	Name of Manager.	Number of Years worked.	Quality of Coal.	No. of Seams worked.	Thickness of Seams.	Thickness worked.	Dip of Seam.	System of Underground Working.	Number of Shafts.	Dimensions of Shafts.		Output delivered by	Output for 1908.			Approximate Total Output to 31st December, 1907.	Approximate Total Output to 31st December, 1908.	Number of Men ordinarily employed.			Power used for drawing Mineral.	Pumps.			Means of Ventilation.	Date of Inspector's Last Visit.
										Size of Shaft or Adit.	Depth of Shaft or Length of Adit.		Coal.	Slack.	Total.			Above.	Below.	Total.		Stroke.	Size of Barrel.	Height of Column.		
NORTHERN INSPECTION DISTRICT.																										
KAWAKAWA DISTRICT.																										
Kawakawa Mine ..	Neill, S.	10	semi-bitum.	..	6'	6'	1 in 3	bord and pillar	1 5' 6" x 3' 6"	200'	adit	Tons. 980	Tons. 980	..	980	Tons. 72,432	Tons. 73,412	2	3	5	..	..	..	..	8/12/08
Kihinikau Syndicate ..	..	..	ditto	..	..	..	..	..	..	..	..	500	..	..	500	..	500	..	2	2	..	..	..	..	5/12/08
HIKURANGI DISTRICT.																										
Hikurangi Mine ..	Dunn, W. R.	16	"	1 7'	12' to 10' 6"	7' to 10' 6"	1 in 6	bord and pillar	3 6' x 8'	758'	adit	61,071	..	..	61,071	520,522	581,593	9	65	74	horse and steam	16" 10" 8" 35'	35'	natural	4/12/08
Northern Collieries ..	Morgan, Wm.	11	"	1 5'	8' 6" 5' to 8' 6"	5' to 8' 6"	1 in 10	ditto	5 9' x 6'	1,850'	"	50,275	..	..	50,275	233,971	284,246	7	67	74	ditto	free drainage	"	"	7/12/08
NGUNGURU DISTRICT.																										
Kiripaka Colliery ..	Tattley, E. W.	9½	"	1 13'	20' 11' to 18'	11' to 18'	1 in 6	"	2 9' x 6' 8' x 6'	990'	"	34,579	..	..	34,579	128,870	163,449	18	50	68	steam	8" 6" 3" 30'	30'	fan	3/12/08
WAKATO DISTRICT.																										
Taupiri Extended ..	Wood, W.	20½	brown	1 10'	to 30'	20'	1 in 10	"	2 10' diam.	166'	shaft	62,294	15,168	..	77,462	830,301	907,763	32	140	172	"	12" 5" 204'	204'	fan	27/11/08	
Taupiri Reserve ..	"	21½	"	1 10'	to 24'	18'	1 in 8	"	1 8' x 6'	208'	"	5,714	830	..	6,544	322,943	329,487	3	9	12	"	12" 7" 220'	220'	steam-pipes	17/7/08	
Ralph's Taupiri ..	Wight, E. S.	18½	"	1 10'	to 50'	20'	1 in 10	"	2 9' 5" x 5' 8' 6"	100'	"	69,030	22,741	..	91,771	571,341	663,112	34	139	173	"	12" 5" 260'	260'	fan	15/10/08	
Taupiri West ..	McEwan, R.	1½	"	1 14'	to 24' 7' to 10'	7' to 10'	1 in 7	"	1 9' 6" x 5' 6" diam.	250'	"	91	..	..	91	..	91	..	2	2	oil engine	12" 5" 130'	130'	natural	..
Taupiri South ..	Leather, W. R.	6½	"	1 18'	to 24'	12'	1 in 7	"	2 6' x 6'	184'	adit	200	..	..	200	20,673	20,873	3	2	5	horse	..	..	"	27/11/08
MIRANDA DISTRICT.																										
Union Collieries ..	Tattley, F. J.	7	"	1 57'	20' to 30'	20' to 30'	varied	"	1 4' x 4' 6' x 6'	links 90'	"	14,876	..	..	14,876	72,153	87,029	12	15	27	steam	12" 18" 6" 90'	90'	exhaust steam	16/10/08
Drury DISTRICT.																										
Drury Mine ..	Holden, James	4	"	1 14'	7'	7'	1 in 5	"	1 5' x 6'	750	"	565	24	..	589	1,493	2,082	..	5	5	manual	7½" 6" 5" 6"	6"	natural	17/10/08	
MOKAU DISTRICT.																										
Mangapapa Mine ..	Lennox, Wm.	24	"	1 6' to 8' 6' to 8'	6' to 8'	6' to 8'	1 in 10	"	1 9' x 6'	1,752'	"	5,989	..	..	5,989	52,966	58,955	2	13	15	horse	..	..	furnace	6/6/08
Output of mines included in previous statements at which operations are suspended .. 1,633,406 1,633,406																										

Output of mines included in previous statements at which operations are suspended

WEST COAST INSPECTION DISTRICT.

COLLINGWOOD.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														</
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22/12/08

STATISTICS OF WORKINGS IN COAL-MINES, 1908—continued.

Name of Mine and Locality.	Name of Manager.	Number of Years worked.	Quality of Coal.	No. of Seams worked.	Thickness of Seams.	Thickness worked.	Dip of Seam.	System of Underground Working.	Number of Shafts.	Dimensions of Shafts.		Output delivered by	Output for 1908.		Approximate Total Output to 31st December, 1907.	Approximate Total Output to 31st December, 1908.	Number of Men ordinarily employed.		Power used for Drawing Mineral.	Pumps		Means of Ventilation.	Date of Inspector's Last Visit.			
										Size of Shaft or Adit.	Depth of Shaft or Length of Adit.		Coal.	Slack.			Total.	Above.		Below.	Total.			Stroke.	Size of Barrel.	Height of Column.
WEST COAST INSPECTION DISTRICT—continued.																										
GREYMOUTH.																										
Paparoa..	Watson, J. C.	18	bitum.	2	17'	15'	1 in 6	bord and pillar	..	9' x 6'	1,232'	adit	Tons. Under development	Tons.	Tons.	6,44	50	..	Free drain	..	fan	..	..	
Blackball ..	Clark, W.	..	..	..	..	..	..	..	..	10' x 7'	600'	..	74,822	10,526	85,348	941,207	1,026,555	40	110	150	..	..	..
Brunner ..	Armstrong, J.	44	"	1	12'	all	1 in 4	ditto	1	6' x 4'	30'	..	6,443	8,850	15,293	2,188,233	10	40	50	steam	Free drain	..	..	
										12' x 10	(shaft) 22 ch.	..								..	..	..	..
Tyneside, Brunner-ton	Armstrong J.	26	"	1	12'	all	1 in 4	"	1	10' diameter	103'	shaft	33,372	6,932	40,304	254,755	295,059	40	120	160	Mine	flooded and abandoned	June, '08.	..		
Thornton's Lease ..	Boustridge, T. H.	..	..	..	8'	8'	1 in 5	bord and pillar	..	10' x 7'	726'	..	Under development			..	12	12	..	No. 1, 6" ram	..	fan	..	..
Point Elizabeth State Mine..	Herd, Joseph, and Coulthard, John	43	bitum.	1	8'	..	..	..	..	(No. 1)	792'	endless rope	172,951	61,299	234,250	561,208	795,458	82	318	400	steam	No. 2, 6" ram	..	..
										(No. 2)										13" ram	..	..	..
Output of mines included in previous statements at which operations are suspended .. 1,172,480 1,172,480																										
SOUTHERN INSPECTION DISTRICT.																										
CANTERBURY.																										
Springfield, Springfield	Taylor, James (permit)	32	brown	1	1' 8"	all	1 in 6	bord and pillar	..	6' x 4'	80'	tunnel	312	..	312	90,127	90,439	1	3	4	steam	direct acting steam pump	8/12/08	8/12/08		
Springfield Fireclay - works, Springfield	Peters, Robert	8	fireclay	1	2'	"	1 in 6	ditto	1	14' 6" x 3'	50'	adit	..	..	..	472	472	1	2	3	horse	steam pump	8/12/08	8/12/08
Homebush, Glentunnel ..	Campbell, H.	36	brown	2	5' & 7'	"	1 in 3	"	1	14' 6" x 3' 6"	80'	tunnel	12,735	1,021	13,756	212,082	225,838	6	35	41	steam & horse	..	..	8/12/08
St. Helen's, White Cliffs ..	Thin, W. (permit)	27	"	4	8' 4' 6"	"	1 in 3	pillar, stope, and wall	1	4' x 3' 6"	80'	adit	1,561	..	1,561	16,372	17,933	1	4	5	steam	..	..	8/12/08
										6' x 5'	5 ch.									exhaust steam from pump	..	..	..
Mount Somers, Mount Somers	Thompson, A.	7	"	1	20'	10'	south 1 in 4 1 in 9	bord and pillar	1	5' x 4' 7' x 6'	25'	"	2,230	682	2,912	24,244	27,156	2	8	10	horse	..	..	13/12/08
Woollahed Creek, Mount Somers	Harris, A. E. (permit)	44	"	1	40'	15'	1 in 9	ditto	..	..	10 ch.	..	1,752	..	1,752	56,074	57,826	2	4	6	"	..	..	13/12/08
Te Moana, Geraldine	Crowe Bros.	2	"	1	..	5'	1 in 3	..	..	..	..	..	110	..	110	30	140	..	2	2	..	..	..	18/4/08
Albury, Albury ..	Kidd, G. C. (permit); Riddle, C. E. (owner)	17	"	1	10'	7'	1 in 1	bord and pillar	..	14' x 3' 6"	68'	adit	827	..	827	8,827	9,654	1	2	3	horse	..	..	17/7/08

Location	Owner	Area (acres)	Depth (ft)	Direction	Width (ft)	Height (ft)	Length (ft)	Area (sq ft)	Volume (cu ft)	Weight (tons)	Value (£)	Notes	Remarks	Date
Waihaio Forks, Waihaio Forks	Lomas, G. (permit)	16	11	1	6'	5'	all	100'	435	2,567	3,002	1	2	16/7/08
Waihaio, Waihaio Forks	Allen, Alexander	19	1	1	7'	5' x 4'	260'	38	38	2,042	2,080	..	2	16/7/08
Elephant Hill, Waihaio Downs	Richards, E.	40	1	1	14'	6' x 5'	20 ch.	40	40	628	668	..	1	10/12/08
<i>Private Pits.</i>														
Snowdon, Rakaia Gorge	Gerard, G.	21	1	1	14'	4' x 4'	90'	..	..	1,808	1,808	..	..	..
Craigieburn, West Coast Road	Manson, D.	12	1	1	..	..	..	..	45	378	423	..	..	..
<i>NORTH OTAGO.</i>														
Dalgaty, Hakataramea	Drysdale, J.	27	1	1	30'	..	..	..	183	2,637	2,820	..	1	..
Wharekuri, Wharekuri	Shanks, A.	..	1	1	40'	13'	..	..	62	2,517	2,579	..	1	11/12/08
Kurou, Kurou	Sanderson, J.	12	1	1	indefinite	30'	..	..	368	3,217	3,585	..	1	11/12/08
Otiake, Otiake	Taylor, George	5	1	1	18'	12'	..	..	22	256	278	..	1	..
St. Andrew's, Papakaio	Nimmo, T. (permit)	30	1	1	7'	6'	..	..	1,719	39,620	41,339	..	5	11/12/08
Prince Alfred, Papakaio	Willets, G. H. (permit)	39	1	1	1' to 9'	all	..	..	692	52,710	53,402	..	3	11/12/08
Ngapara, Ngapara	Nimmo, W. (permit)	30	1	1	25'	8'	..	..	953	24,287	25,240	..	2	15/7/08
Shag Point, Shag Point	Hunt, W. (permit)	38	1	1	2' 6"	all	..	..	310	404,851	405,287	..	3	9/10/08
Allendale, Shag Point	McIntosh, A.	21	3	3	4' 6"	..	..	..	8,974	5,248	305,665	..	43	29/10/08
<i>SOUTH OTAGO.</i>														
Fernhill, Abbotsford	Gray, J.	31	1	1	19'	10'	..	..	408	1,081	146,909	..	5	29/12/08
Freeman's, Abbotsford	Gillanders, A. S.	28	2	2	7' to 14'	all	..	..	18,018	2,740	384,730	..	41	29/12/08
Green Island, Green Island*	Barclay, jun., T.	21	1	1	14'	10'	..	..	1,652	..	2,295	..	4	26/5/08
Jubilee, Saddle Hill	Barclay, T.	11	1	1	17'	all	..	..	17,814	3,993	127,185	..	25	30/12/08
Burnwell, Saddle Hill	Harris, A.	27	1	1	20'	10' to 15'	..	..	3,023	..	65,525	..	6	30/12/08
Saddle Hill (No. 1), Saddle Hill	Ogilvie, W.	36	1	1	22'	20'	..	..	2,995	5,255	176,981	..	14	30/12/08
Saddle Hill (No. 2), Saddle Hill	Hill, Robert	7	1	1	22'	10'	..	..	4,592	14,850	104,015	..	20	30/12/08
Lauriston, Brighton	Walker, James	22	1	1	6'	5' 6"	..	..	170	..	7,180	..	2	3/9/08
Brighton, Brighton	McColl, D. L.	20	1	1	5'	all	..	..	191	..	2,433	..	2	3/9/08
Ferndale, Tairi Mouth	Fairbairn, R.	25	1	1	10'	8'	..	..	54	..	803	..	1	..
Real Mackay, Milton	Bruce Railway and Coal Co.	4	1	1	8'	6'	..	..	4,099	1,626	19,660	..	6	22/12/08
Waronui, Milton	Carruthers, James	4	1	1	14'	7'	..	..	9,934	2,243	27,873	..	43	22/12/08
Wallsend, Lovell's Flat	Hewitson, R.	38	1	1	20'	all	..	..	48	..	11,491	..	1	..
Benbar, Stirling	McSkimming, P.	45	1	1	20'	12'	..	..	2,797	803	121,887	..	5	20/8/08
Mount Wallace, Stirling	Park, F. (permit)	14	1	1	20'	12'	..	..	570	163	7,322	..	1	30/8/08

* Prior to 1800 this mine had produced 108,198 tons, which are included in the additions at end of statement.

STATISTICS OF WORKINGS IN COAL-MINES, 1908—continued.

Name of Mine and Locality.	Name of Manager.	Number of Years worked.	Quality of Coal.	No. of Seams worked.	Thickness of Seams.	Thickness worked.	Dip of Seam.	System of Underground Working.	Dimensions of Shafts.		Output delivered by	Output for 1908.		Approximate Total Output to 31st December, 1907.	Approximate Total Output to 31st December, 1908.	Number of Men ordinarily employed.		Power used for drawing Mineral.	Pumps.		Means of Ventilation.	Date of Inspector's Last Visit.								
									Number of Shafts.	Depth of Shaft or Length of Tunnel.		Coal.	Slack.			Above.	Below.		Stroke.	Size of Barrel.			Height of Column.							
SOUTHERN INSPECTION DISTRICT—continued.																														
SOUTH OTAGO—continued. Taratu, Taratu ..	Shore, T.	7	brown	1	20'	8' to 12'	1 in 10	bord and pillar	2	6' x 4' 13' 6" x 5' 2"	185' 200'	Tons. 12,676	Tons. 4,670	Tons. 17,346	Tons. 91,413	108,759	15	38	53	steam	..	fan	23/12/08							
Kaitangata .. Castle Hill, Kaitangata .. Port Arthur, Kaitangata .. Wangaloa, Kaitangata .. Mainholm, Waipahi ..	Carson, W. (N.Z. Coal and Oil Co., sec.)	32	"	3	50' in aggregate	35'	1 in 1½ to 1 in 4	"	2	10' x 7' 8' x 4' 6"	51 ch. 580'	67539	42,776	110,315	2,202,365	2,312,080	60	236	296	steam & compressed air	2' 6" three-th row pumps	"	..							
	Irving, J.	4	"	1	10'	..	1 in 4	"	1	11' x 6' 6" 9' diam.	45 ch. 526'									25	..	25	156	181	1	1	ditto	6" 500' furnace	19/8/08	
	Smith, J.	28	"	1	10' 6"	8'	1 in 6	"	66 ft.									20	..	20	1,936	1,956	1	1	"	centrifugal	"	20/8/08
	Lischner, W.	23	lignite	1	20'	all	..	open									1,804	..	1,804	48,332	50,136	3	..	3	horse	steam-driven	19/12/08
Private Pit. Lakeside, Lovell's Flat ..	McGillivray, W.	8	brown	1	..	..	..	..	..	..	..	194	..	194	899	1,093	..	..	..	..	..	..		
CENTRAL OTAGO. Coal Creek (leasehold) Coal Creek (freehold), Coal Creek Flat McPherson's, Coal Creek Flat Perseverance, Coal Creek Flat	Barber, J.	38	lignite	1	80'	10'	..	bord and pillar	..	5' x 7"	3 ch.	2,727	..	2,727	46,914	49,784	2	5	7	horse	syphon	natural	4/12/08							
	McPherson, A. J. (permit)	7	"	1	..	..	..	ditto	1	6' x 7'	150'	143	..	143	..	..	1	2	3	band	..	"	4/12/08		
		38	"	1	80'	30' to 40'	1 in 6	open	2,134	..	2,134	48,020	50,154	4	..	4	horse	drainage tunnel	..	4/12/08						
		21	"	1	75'	70'	1 in 3	bord and pillar	..	6' x 7'	500'	adit	2,817	..	2,817	39,768	42,565	2	3	5	Pelton wheel & winch	hydraulic jet pump	natural	4/12/08						
Alexandra (including daunted), Alexandra	McNeill, D.	28	brown	1	14'	7'	1 in 7	ditto	1	15' x 2' 6" 6' x 5'	60' 15 ch.	3,458	160	3,618	64,770	68,388	1	7	8	steam	Snow pump	exhaust from steam pump	3/12/08							
Molyneux (Alexandra Company), Alexandra	Pollock, J.	10	"	1	25'	9'	1 in 20	"	2	6' x 4' 5' x 4' 6"	60' 80'	7,701	867	8,568	77,190	85,764	7	22	29	"	3-th row ram pump & Snow pump	steam and exhaust from pump-engine	3/12/08							
Cambrian, Cambrian Weishman's Gully, Cambrian's Jones's, Cambrian's St. Bathian's, St. Bathian's Beck's Idaburn (including McLean's) Idaburn Idaburn, Idaburn ..	Dungey, C.	24	lignite	1	9'	all	..	open	..	..	..	22	..	22	14,460	14,482	1	..	1	horse	..	..	1/12/08		
	McGuckin, J.	47	"	1	30'	"	..	"	..	..	..	139	..	139	32,841	32,980	1	..	1	"	..	..	1/12/08		
	Jones, R.	4	"	1	..	..	..	"	..	..	..	102	..	102	40	142	1	..	1	"	..	..	1/12/08
	Enwright, J.	11	"	1	indefinite	15'	..	"	..	..	..	340	..	340	4,222	4,562	2	..	2	"	..	..	2/12/08		
	Beck, W. (Mrs. M. Beck, owner)	22	"	1	35'	all	..	"	..	..	..	959	..	959	23,362	24,321	3	..	3	"	..	..	2/12/08		
Idaburn, Idaburn ..	White, J.	38	"	1	20'	..	..	"	..	..	..	944	..	944	38,778	39,722	2	..	2	..	..	..	2/12/08

STATISTICS OF WORKINGS IN COAL-MINES, 1908—continued.

Name of Mine and Locality.	Name of Manager.	Number of Years worked.	Quality of Coal.	No. of Seams worked.	Thickness of Seams.	Thickness worked.	Dip of Seam.	System of Underground Working.	Dimensions of Shafts.		Output delivered by	Output for 1908.		Approximate Total Output to 31st December, 1907.	Approximate Total Output to 31st December, 1908.	Number of Men ordinarily employed.		Power used for drawing Mineral.	Pumps.		Means of Ventilation.	Date of Inspector's Last Visit.	
									Size of Shaft or Adit.	Depth of Shaft or Length of Adit.		Coal.	Slack.			Total.	Above.		Below.	Total.			Stroke.	Size of Barrel.	Height of Column.
SOUTHERN INSPECTION DISTRICT—continued.																							
SOUTHLAND—continued.																							
Riverbank, Landslip, Waikaia	Kyle, W. (permit)	5	lignite	1	10'	all	1 in 8	levels & headings	6 x 4'	adit	Tons. 1,803	Tons. ..	Tons. 1,803	Tons. 4,806	6,609	..	5	5	hand	oil engine and pump	natural	24/7/08	
Rossvale, Landslip, Waikaia	Bond, J. (permit)	5	"	1	10'	"	..	bord and pillar	6' x 5'	"	5,417	..	5,417	9,042	14,459	2	4	horse	..	..	"	24/7/08
Waikaia, Monaghan's, Landslip, Waikaia	Cain, A. (permit)	1	"	1	10'	"	1 in 4	ditto	..	"	2,306	..	2,306	2,948	5,254	1	5	"	..	..	"	8/9/08
Muddy Terrace, Waikaia	McLelland, J. ..	6	lignite & shale	2	14'	"	..	"	..	dip	2,178	..	2,178	9,728	11,906	1	4	"	..	..	"	8/9/08
Argyle, Upper Waikaia	Hutton, C. H. ..	17	lignite	1	10'	"	..	open lifts	..	open	158	..	158	3,241	3,399	1	..	hand	..	..	..	..
Anderson's (late Radford's), Waikaia	Yeomans, S. ..	2	"	1	18'	10'	vertical	"	..	"	313	..	313	5,122	5,435	..	2	"	..	..	..	21/3/08
Beer's, Mossburn	Beer, Mrs. T. ..	6	"	1	6'	all	irregular	open	..	open	151	..	151	359	510	2	..	..	..	..	..	21/11/08
Te Anau (or Lynwood), Te Anau Downs	Tourist and Health Resorts Depart.	8	"	1	7'	"	..	"	..	"	282	..	282	850	1,132	2	..	..	..	..	..	21/11/08
Mataura Collieries Company, Mataura	Johnson, W. C. (permit)	12	"	1	7'	"	..	"	..	"	7,648	..	7,648	102,601	110,249	6	2	horse	drainage tunnel	..	..	23/7/08
Mataura Lignite, Mataura	Coster, W. ..	32	"	1	10' to 20'	"	..	"	..	"	7,315	..	7,315	66,904	74,219	8	..	"	centrifugal steam-driven	..	..	23/7/08
Boghead, Mataura	Sleeman & Co. ..	11	"	1	12' to 20'	12'	..	"	..	"	1,122	..	1,122	5,712	6,834	3	..	"	Douglas pump	..	..	23/7/08
Waimumu, Waimumu	Wallace, J. (permit)	9	"	1	9'	7'	..	bord and pillar	..	"	2,870	..	2,870	24,463	27,333	..	3	"	water-driven	natural	..	23/7/08	
Ota Creek, Ota Creek	Genge, James E. ..	28	"	1	6'	all	..	open	..	open	500	..	500	13,524	14,024	2	..	"	..	..	..	..
Clarke's, Wyndham	Clarke, S. ..	2	"	1	10'	"	..	"	..	"	1,986	..	1,986	2,326	4,312	2	..	"	centrifugal pump	..	..	24/10/08
Robin Hood, Pine Bush	Couser, William	27	"	1	15'	"	1 in 20	bord and pillar	..	adit	179	..	179	2,659	2,838	1	..	"	..	..	..	..
Graham's, Fairfax	Graham, P. S. ..	30	"	1	6'	"	..	"	..	"	120	..	120	16,141	16,261	..	1	hand	..	..	natural	16/11/08
Ardlowie, Fairfax	Poole, E. ..	6	"	1	..	"	..	open	..	open	184	..	184	510	694	1	..	"	..	..	..	16/11/08
Speybank, No. 2, Fairfax	Smith, William ..	2	"	1	3'	"	..	"	..	"	152	..	152	412	564	1	..	"	..	..	..	16/11/08
Nightcaps, Nightcaps	Barclay, William	27	brown	3	36' in aggregate	24' in aggregate	variable to 1 in 7	open and bord and pillar	3	4' x 4' 6" 5' x 5'	48,487	..	48,487	567,776	616,263	35	57	steam and horse	steam in fans	(2)	..	18/12/08	
Hit or Miss, Nightcaps	Tinker, W. (permit)	8	"	1	7'	all	..	bord and pillar	..	levels	1,781	..	1,781	3,831	5,612	1	3	horse	..	..	natural	23/10/08
H.B., Nightcaps	Spence, G. R. (permit)	10	"	1	7'	"	..	ditto	..	"	2,078	..	2,078	5,661	7,739	1	2	"	..	..	"	23/10/08
New Brighton, Nightcaps	McKenzie, D. (permit)	1½	"	1	17'	"	..	"	..	"	1,902	..	1,902	70	1,972	2	3	"	..	..	"	17/12/08
The Willow, Nightcaps	Clark, John ..	9	"	1	14'	"	..	open	..	open	190	..	190	2,127	2,317	2	..	..	..	..	..	17/12/08

Wairio (late Manuka Hill) Nightcaps	Lewis, James (permit)	4	"	1	17'	10'	..	board and pillar	8' x 8'	2 ch.	adit	1,729	..	1,729	1,096	2,825	1	4	5	steam	Pair Gould's pumps natural	17/12/08
Hogan's, Orepuki ..	Hogan, C.	4	lignite	1	11'	..	..	open	..	..	open	..	..	..	20	20	20	..	..	..	..	30/7/08
Wildbush, Riverton ..	Smith, William ..	1	"	1	20'	..	..	"	..	..	"	132	..	132	..	132	2	..	2	..	..	29/7/08
Bush Siding, Seaward Bush	Bowden, F. R. ..	6	brown	1	..	all	..	"	..	..	"	748	..	748	4,140	4,888	3	..	3	horse	..	..
Clifton, Clifton ..	Gillies, T. ..	7	"	1	..	..	..	..	..	..	..	..	..	..	297	297	..	..	..	..	..	..
Private Pits.																						
Waverley Park, Pukerau ..	Milne, James ..	7	lignite	1	7'	all	..	open	..	..	open	..	..	..	30	30	30	..	..	..	..	29/4/08
Mason's, Wellwood Park, Pukerau	Mason, A. M. W.	7	"	1	7'	"	..	"	..	..	"	24	..	24	130	154	..	..	..	..	..	..
Mason's, Pukerau ..	Mason, jun., A. ..	1	"	1	7'	"	..	"	..	..	"	13	..	13	..	13	..	..	..	..	..	29/4/08
Glover's, Pukerau ..	Glover, Thomas ..	11	"	1	7'	"	..	"	..	..	"	35	..	35	199	234	..	..	..	..	..	29/4/08
Smith's, East Gore ..	Smith, H. ..	6	"	1	7'	"	..	"	..	..	"	..	..	..	47	47	..	..	..	..	..	29/4/08
Riverview, Gore ..	Nicol, L. D. ..	17	"	1	4'	"	..	"	..	..	"	41	..	41	1,618	1,659	..	..	..	..	..	..
Cross's, Otama ..	Cross Bros. ..	10	"	1	..	"	..	"	..	..	"	..	..	..	169	169	..	..	..	..	..	..
Ford's, Onatton ..	Ford, P. ..	28	"	1	7'	"	..	"	..	..	"	30	..	30	1,224	1,254	..	..	..	..	..	21/2/08
Perkins's, Wendon Valley	Perkins, G. A. ..	7	"	1	..	"	..	"	..	..	"	10	..	10	57	67	..	..	..	..	..	..
Tuach's, Waimumu ..	Tuach, J. ..	2	"	1	5'	..	1 in 4	"	..	..	"	..	..	..	58	12	..	..	..	..	..	..
Blackmount, Blackmount	Studholme, P. ..	..	brown	1	..	all	..	"	..	..	"	..	..	..	58	58	..	..	..	..	..	19/11/08
Wyndham, Wyndham ..	Irvine, D. ..	13	lignite	1	..	"	..	open	..	..	"	..	..	..	328	328	..	..	..	..	..	..
Mount Linton, Nightcaps ..	McGregor, W. G. A.	14	brown	1	10'	8'	..	"	..	..	"	7	..	7	644	651	..	..	..	..	..	17/12/08
Output of mines included in 1907 statement, at which operations are suspended	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,401,023	1,401,023	..	..	..	..	..	..
Totals, Southern District, Middle Island	..	..	..	..	..	..	..	..	..	..	..	363,922	88,560	452,482	794,498	839,739	308	744	1052	..	..	..
Totals, West Coast District, Middle Island	..	..	..	..	..	..	..	..	..	..	..	835,640	227,926	1,063,566	1,251,662	1,358,018	562	1,646	2,208	..	..	..
Totals, North Island	..	..	..	..	..	..	..	..	..	..	..	306,164	28,763	344,927	446,107	480,598	122	512	634	..	..	..
Grand Totals	..	..	..	..	..	..	..	..	..	..	..	1,505,726	355,249	1,860,975	2,492,259	2,678,857	992	2,902	3,894	..	..	..

Add output of following eleven mines, included in previous statement but now abandoned : Motupipi, 360 tons ; Westport-Wallsend, 3,441 tons ; Waimangaroa, 17,307 tons ; Wellington, 2,299 tons ; Inkerman, 2,665 tons ; Inglewood, 314 tons ; Devil's Creek, 343 tons ; Inangahua, 71 tons ; Murray's Creek No. 2, 450 tons ; Burke's Creek, 300 tons ; Reefton, 36 tons ; total 27,586

Output of mines included in statement for 1890, but whose operations were suspended prior to 1890 (less three, which are again included in body of statement—namely, Hill's Creek, 779 tons ; Lovell's Flat, 323 tons ; Wyndham, 1,988 tons : total, 3,090 tons) 132,732

Output of mines included in former statements, but whose operations were suspended prior to 1889 172,529

Output of Waikaka, Adam's Flat, and Waimea Mines, inserted twice in statement for 1891 6,518

27,122,939

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NEW ZEALAND.

“THE LAND FOR SETTLEMENTS ACT, 1908”

(REPORT ON).

Presented to both Houses of the General Assembly in compliance with Section 85 of “The Land for Settlements Act, 1908.”

The LAND PURCHASE INSPECTOR to the Right Hon. Sir JOSEPH WARD, Minister of Lands.

SIR,—

Wellington, 1st June, 1909.

In accordance with the requirements of the Land for Settlements Act, I submit the sixteenth yearly report of its operations for the year which ended on the 31st March, 1909.

1. The year began with negotiations for the purchase of six estates. Of these, five were completed, and the purchase of one abandoned.

2. The five new estates paid for, together with small areas added to estates previously acquired, aggregate 73,156 acres, for which £339,629 19s. 3d. was paid, and a sum of £42,795 16s. 3d. was expended on roads, workers' dwellings, and other things incidental to the acquisition of these and estates formerly purchased.

3. The total expenditure out of the Land for Settlements Account for the year 1908–9 is £382,425 15s. 6d., and brings the expenditure to date to £5,599,680. This represents the capital value of 1,195,289 acres.

4. Agreements have been made since the 31st March for the purchase of three other estates, containing 27,180 acres, which will cost about £176,246.

5. The estates actually completely purchased are situated in Wellington, Nelson, Canterbury, and Otago.

6. There were 121 estates, of 772,144 acres, offered to the Government during the year, and 45, of 349,500 acres, were inspected on the ground.

7. The Board of Land Purchase Commissioners held twenty-one meetings, at which forty-one estates were dealt with, and recommendations in favour of the purchase of fifteen properties were made.

8. A summary of the transactions shows :—

	Number.	Acres.	Prime Cost.
Estates acquired to 31st March, 1908..	182	1,122,135	£4,807,369
Estates acquired in 1908–9	5	73,156	339,630
	187	1,195,291	£5,146,999

9. The actual income of the account amounts to £250,623 8s. 4d., and the expenditure in interest is £215,828 0s. 9d., giving a credit for the year of £34,795 7s. 7d.

10. This will be seen from the following statement of the Land for Settlement Account for the year 1908–9 :—

<i>Dr.</i>	£	s.	d.	<i>Cr.</i>	£	s.	d.
Cash and investments, 31st March, 1908	492,062	12	4	Land purchased	339,629	19	3
Proceeds of debentures ..	211,721	0	0	Incidental expenses ..	42,795	16	3
Receipts under Land Act, sections 191 and 177 ..	14,630	4	6	Interest	215,828	0	9
Receipts under Land for Settlements Act, section 69 ..	2,417	2	2	Sinking fund	57,963	1	7
Rents	237,831	8	3	Balance, 31st March, 1909 ..	323,820	19	11
Interest	12,792	0	1				
Recoveries and credits ..	8,583	10	5				
	£980,037	17	9		£980,037	17	9

11. A new item of revenue appears in the accounts of last year and this year: Holders of leases in perpetuity under the Land Act may now convert their leaseholds into freeholds at a value agreed on at the time of conversion. Under this authority £12,162 6s. 6d. was paid into the Land for Settle-

ment Account in 1908-9 and £1,032 in 1907-8, and these sums are contributions by the Land Fund. Holders of renewable leases may also pay up to 90 per cent. of the capital value of their leaseholds, and receive a relative reduction in rent. For this object £2,467 18s. is now in the account, and is a debt owing to the leaseholders.

12. The area of land opened for selection this year for the first time is 71,219 acres.

13. The area of land selected during the year, less forfeitures and surrenders, is 81,909 acres, and there is an increase of 200 tenants of rural lands, besides occupiers of workers' dwellings.

14. The total area leased, excluding workers' dwellings, is 1,053,640 acres to 4,417 tenants. Of this area, 678,923 acres are held under leases in perpetuity, 155,982 acres under renewable leases, and 218,735 acres under small grazing-runs and short tenures.

15. The area unlet at 31st March, 1909, is 141,648 acres, estimated to be worth a rental of £9,746 per annum.

16. Of the area selected 347,427 acres are now in cultivated grass, 86,731 acres in white crop, 60,371 acres in green crop, and 559,111 acres in native grass, bush, orchards, &c.

17. The total number of sheep depastured is 881,854; cattle, 60,374; horses, 15,687; and pigs, 10,044.

18. The number of tenants occupying workers' dwellings acquired under the Land for Settlements Act is now 72, and the holdings aggregate 11 acres 1 rood 37·5 perches, an average tenancy of 24 perches. There are also 36 occupiers of dwellings on ordinary Crown lands.

The rents actually collected come to £2,455 10s. 9d.

19. The purchase of private land for settlements began with the Act of 1892, and the first report of any transactions is that of Mr. S. Percy Smith in 1894. Under his chairmanship there were acquired twenty-eight estates, having an area of 86,919 acres, and costing up to 31st March, 1896, £389,315, an average price per acre of £4 10s. The rents collected that year were £5,946, equal to 1·53 per cent. of the capital cost.

20. From the passing of the Act of 1895 until 1902 Mr. McKerrow was Chairman, and purchased seventy-nine estates, making the total acquisitions at the end of his term 107 estates of 448,349 acres, the capital cost of which was £2,229,128, averaging £5 per acre nearly. The rents collected in 1902 came to £90,053, equal to 4·04 per cent.

21. At the end of the year 1908-9 the investments amounted to £5,599,680, in 187 estates, of an area of 1,195,291 acres, an average of £4 13s. 6d. per acre; and the rents collected came to £237,831, about 4½ per cent. of the capital cost.

22. In the Auckland District the returns are equal to 4·24 per cent. of the capital cost; in Hawke's Bay the returns are 4·06 per cent.; in Taranaki, 4·11 per cent.; in Wellington, 3·92 per cent.; in Nelson, 4·5 per cent.; in Marlborough, 4·61 per cent.; in Canterbury, 4·39 per cent.; in Westland, 3·92 per cent.; in Otago, 4·21 per cent.; and in Southland, 4·5 per cent.

Last year at 31st March, 1908, the rents collected were: In Auckland, 3·54 per cent.; Hawke's Bay, 4·29 per cent.; Taranaki, 4·26 per cent.; Wellington, 4·68 per cent.; Nelson, 4·85 per cent.; Canterbury, 4·7 per cent.; Otago, 4·24 per cent.; Southland, 4·98 per cent.; Westland, 4·81 per cent.; and Marlborough, 4·54 per cent.; an average for that year of 4·41 per cent.

23. Only a small area of the land acquired for workers' dwellings is yet built upon, and the revenue derived gives only a partial return for the investment.

The capital cost of these small properties is distributed as under:—

	Area. Acres.	Cost. £	Last Year's Return. Per Cent.
Auckland	219½	39,167	2·16
Wellington	535	115,648	0·09
Otago	11¾	10,361	5·00
Canterbury	3¾	4,568	0·07

The whole 770 acres cost 169,744, and paid 1·45% interest.

If this suburban land is omitted from the ordinary settlement lands, it would show the year's earning of the latter portion to be 4½ per cent. instead of 4¼ per cent.

24. Negotiations are in progress for the purchase of estates in Canterbury, Otago, Marlborough, Wellington, Hawke's Bay, and Southland.

The Land for Settlements Account at the 31st March, 1909, stands as under:—

Dr.	£	Cr.	£
Proceeds of loans current	5,708,042	Purchase-money	5,146,999
Rents, &c., received	1,710,032	Incidental expenses	452,681
		Interest	1,331,980
		Sinking fund	162,593
		Balance	323,821
	<u>£7,418,074</u>		<u>£7,418,074</u>

The usual tables are appended.

I have, &c.,

A. BARRON,

Land Purchase Inspector,

Chairman of the Board of Land Purchase Commissioners.

The Right Hon. Sir Joseph Ward, Minister of Lands.

“THE LAND FOR SETTLEMENTS ACT, 1908.”

TABLE A.—SUMMARY of all LANDS OFFERED to the GOVERNMENT under “The Land for Settlements Act, 1908,” from 1st April, 1908, to 31st March, 1909, and how dealt with.

Land District.	Estates offered.			Recommended for Purchase.			Not recommended for Purchase.			Under Consideration by the Board on 31st March, 1909.			Withdrawn from Negotiations.		
	No.	Area.	R. P.	No.	Area.	R. P.	No.	Area.	R. P.	No.	Area.	R. P.	No.	Area.	R. P.
Auckland	23	125,142	2 0	2	2,207	2 35	14	80,055	3 5	7	42,879	0 0	..	A.	R. P.
Hawke's Bay	19	190,758	0 2	1	8,411	0 0	9	69,765	0 0	8	97,113	0 2	1	15,469	0 0
Taranaki	4	9,245	0 0	1	3,746	0 0	2	4,999	0 0	1	500	0 0	..	..	..
Wellington	39	168,023	1 13	5	17,688	2 0	18	29,825	3 13	12	116,911	0 0	4	3,598	0 0
Marlborough	4	108,459	0 0	1	37,030	0 0	1	7,000	0 0	2	59,429	0 0	..	..	..
Nelson	2	18,085	0 0	1	2,721	0 0	..	..	..	1	5,364	0 0	..	..	..
Westland	1	5,940	0 0	..	..	..	1	5,940	0 0	..	..	..	..	..	..
Canterbury	18	94,457	3 23	1	26	0 0	6	19,636	3 23	10	61,195	0 0	1	13,600	0 0
Otago	10	54,296	0 0	2	25,872	0 0	5	7,312	0 0	3	21,112	0 0	..	..	..
Southland	1	2,737	0 0	1	2,737	0 0	..	..	..	..	..	..	..	..	..
Totals	121	772,143	2 38	15	100,439	0 35	56	224,534	2 1	44	414,503	0 2	6	32,667	0 0

TABLE B.—RETURN of LANDS RECOMMENDED for PURCHASE by the BOARD of LAND PURCHASE COMMISSIONERS under the above Act from 1st April, 1908, to 31st March, 1909.

Land District and Estate.	Area recom-mended for Purchase.			Price per Acre asked by Vendor.			Price per Acre offered by Government.			Remarks.		
	A.	R.	P.	£	s.	d.	£	s.	d.	Purchased by the Agricultural Department. Action deferred.	By exchange for reserves of equal value. Under negotiations. Offer accepted by vendor.	Declined by Government.
Auckland Land District— Tauranga Suburbs (W. Kerr)	68	2	35	16	0	0	16	0	0			
Hikutata (Alley Bros.)	2,139	0	0	8	5	0	6	0	0			
Hawke's Bay Land District— Mahia Township (G. G. Ormond)	2,207	2	35	3	15	3	..	..	..
Clydebank, Wairoa (Alex. Duff)	369	0	0	4	10	0	..	..	..
Tongio, near Napier (G. J. Mackersey)	9,614	0	0	6	10	0	5	14	2			
Ngatapa, near Gisborne (S. Williamson)	8,411	0	0	7	5	0	7	5	0			
10,697	0	0	0	..	..	..	..	..	..
29,091	0	0	0	..	..	..	..	..	..
Taranaki Land District— Matemateonga (W. Perry)	3,746	0	0	10	0	0	..	..	..

TABLE C (PART I).—STATEMENT OF LANDS FINALLY ACQUIRED FOR SETTLEMENT between 1st April, 1908, and 31st March, 1909.

Land District and Name of Settlement.	Area of each Estate.	Locality of Land.	Mode of Acquisition.	Quality of Land.	From whom acquired.	Price.
	A. R. P.					£ s. d.
Hawke's Bay Land District— Te Mata .. ..	.. ..	Near Hastings	By agreement..	Agricultural ..	B. Chambers ..	.. ..
Wellington Land District— Carrington	5,178 2 25	Near Carterton	Compulsorily ..	Agricultural and pastoral	W. H. Booth and Public Trustee	39,155 0 0
Nelson Land District— Braeburn	18,111 0 38	In Mangles Valley	By agreement..	"	Wilkie and Page ..	13,727 11 10*
Marlborough Land District— Flaxbourne (part) ..	1,230 0 0	On Grassmere	By accretion ..	Agricultural ..	(Not included in former report) Crown lands	.. ..
Canterbury Land District— Culverden	25,163 3 38	North Canterbury..	Compulsorily ..	Agricultural and pastoral	Trustee late J. Cracroft-Wilson	121,251 16 2
— Morice (part)	10 2 38	Little River	By agreement..	(Closed roads, &c.) ..	H. White ..	196 9 10
Otago Land District— Karooh Hill	25,174 2 36	.. ..	.. ..	.. ..	.. ..	121,448 6 0
— Otekaika (part) ..	19,114 3 36	Near Oamaru	" ..	Agricultural and pastoral	Messrs. Teschmaker	133,804 16 6
— Meadowbank	4,346 1 22	Palmerston	By agreement..	Pastoral ..	(Balance of purchase-money)	15,940 0 0
	23,461 1 18	.. ..	.. ..	Mainly agricultural ..	John Wither ..	15,544 18 3
		Totals .. ..	.. ..	.. ..	.. ..	165,289 14 9

	SUMMARY.	Area. A. R. P.	Price. £ s. d.
Hawke's Bay	£ 9 6 8
Wellington	5,178 2 25	39,155 0 0
Nelson	18,111 0 0	13,727 11 10
Marlborough	1,230 0 0	.. ..
Canterbury	25,174 2 36	121,448 6 0
Otago	23,461 1 18	165,289 14 9
Totals	73,155 3 37	339,629 19 3

* Part payment.

TABLE C (PART II).—ESTATES ACQUIRED SINCE 31st MARCH, 1909.

Land District and Name of Settlement.	Area.	Locality.	Mode of Acquisition.	Quality of Land.	From whom acquired.	Price.
Hawke's Bay Land District— Ngatapa .. Tongolo ..	A. R. P. 10,679 0 0	Near Gisborne ..	By agreement..	Agricultural and pastoral	S. Williamson ..	£ s. d. 77,553 0 0
	8,411 0 0	Near Napier ..	" ..	"	W. H. Mackersey ..	48,000 0 0
	19,090 0 0					125,553 0 0
Canterbury Land District— Orari Gorge ..	8,090 0 0	South Canterbury..	" ..	"	Messrs. Tripp ..	50,693 0 0

TABLE C (PART III).—SUMMARY OF ESTATES ACQUIRED UP TO 31st MARCH, 1909.

Name of Land District.	Number of Estates acquired before 31st March, 1908.	Areas acquired before 31st March, 1908.	Number of Estates acquired from 1st April, 1908, to 31st March, 1909.	Area acquired from 1st April, 1908, to 31st March, 1909.	Total Numbers of Estates to 31st March, 1909.	Total Area to 31st March, 1909.	Purchase-money.	Incidental Expenses, Roads, Preliminaries, &c.
	A. R. P.			A. R. P.		A. R. P.	£	£
Auckland ..	27	277,110 2 36	..	..	27	277,110 2 36	449,053	82,103
Hawke's Bay ..	22	164,434 1 4	..	..	22	164,434 1 4	1,035,159	74,966
Taranaki ..	4	4,609 0 8	..	..	4	4,609 0 8	79,363	6,073
Wellington ..	25	55,646 0 34	1	5,178 2 25	26	60,824 3 19	473,629	60,797
Marlborough ..	9	113,749 2 21	..	1,230 0 0	9	114,979 2 21	354,463	44,905
Nelson ..	1	6,235 3 10	1	18,111 0 38	2	24,347 0 8	29,975	1,895
Westland ..	2	5,124 3 26	..	..	2	5,124 3 26	8,343	2,900
Canterbury ..	59	262,002 2 18	1	25,174 2 36	60	287,177 1 14	1,551,364	76,500
Otago ..	27	179,048 1 37	2	23,461 1 18	29	202,509 3 15	963,927	83,549
Southland ..	6	54,173 3 37	..	..	6	54,173 3 37	201,723	18,992
Totals ..	182	1,122,135 2 31	5	73,155 3 37	187	1,195,291 2 28	5,146,999	452,680

NOTE.—A summary of the progress, present position, and prospects of each settlement is published in the Lands Report, C.-1, 1908-9.

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NEW ZEALAND.

DEPARTMENT OF LANDS.

REPORT

ON

SCENERY PRESERVATION

FOR THE

YEAR 1908-9.

BY

WILLIAM C. KENSINGTON,
UNDER-SECRETARY.



WELLINGTON.

BY AUTHORITY: JOHN MACKAY, GOVERNMENT PRINTER.

1909.

1909.
NEW ZEALAND.

DEPARTMENT OF LANDS: SCENERY-PRESERVATION.

REPORT FOR THE YEAR ENDED 31st MARCH, 1909; TOGETHER WITH STATEMENT OF ACCOUNTS AND SCHEDULE OF LANDS ACQUIRED AND RESERVED DURING THE YEAR UNDER THE SCENERY PRESERVATION ACTS.

Presented to both Houses of the General Assembly pursuant to Section 17 of "The Scenery Preservation Act, 1908."

SIR,—

Department of Lands, Wellington, 14th June, 1909.

I have the honour to submit herewith report on scenery-preservation for the twelve months ended the 31st March, 1909.

I have &c.,

WILLIAM C. KENSINGTON,
Under-Secretary for Lands.

The Hon. Thomas Mackenzie,
Minister in Charge of Scenery-preservation.

REPORT.

During the twelve months ended 31st March, 1909, there has not been any marked activity in the way of scenery-preservation, but steady and consistent progress has been made in the direction of acquiring and proclaiming areas of attractive forest lands when such are not needed for settlement, are well suited for scenery-preservation, and can be secured at a reasonable cost. Although several suitable areas are under survey, and have in some cases been "taken" under the Public Works Act, the final steps have not been taken except in a few cases.

RESERVATIONS DURING THE YEAR.

Up to the 31st March, 1908, a total area of 33,931 acres had been acquired, the greater portion of this being Crown lands gazetted for scenic purposes under the Act, and the balance being private freehold and Native lands. During the year just ended a further area of 5,045 acres has been similarly proclaimed under the Act, and details are set forth in Appendix A, wherein are shown the location of each section and its area. The principal reserves so acquired are the beautiful Kumutoto Bay, in Queen Charlotte Sound, close to Picton, which was purchased from the Native owners; the Waro limestone rocks, near Hikurangi, North Auckland; and a beautiful little strip of Native bush along the South Wairoa River bank near Hunua, twenty miles south of Auckland. The other areas reserved are also very picturesque, and form a valuable addition to the existing scenic reserves of the Dominion.

In order to secure protection over the lands that have been proclaimed scenic reserves under the Land Act, legislation should be passed bringing them under the Scenery Preservation Act.

It is also desirable that Native lands taken for scenery-preservation purposes under the Public Works Act should be brought under the Scenery Preservation Act in the same manner.

EXPENDITURE DURING YEAR.

Although the results of scenery-preservation up to the year 1909 are very gratifying, and represent a national asset whose present and future value it is almost impossible to place too high an estimate upon, yet it is equally gratifying to point out that the expenditure in acquiring and setting apart the freehold lands included in the reservation has been comparatively trifling. When the Scenery Preservation Act of 1903 was passed, a special vote of £100,000 was set apart for the necessary purchase-money and other expenses in connection with scenery-preservation; but the following table shows that rigid economy has been practised in spending this amount, and that no less than £72,323 is still available for future purchases and maintenance.

Comparison of Expenditure.

—	1904-5.	1905-6.	1906-7.	1907-8.	1908-9.
	£	£	£	£	£
Compensation for land	216	3,336	7,856	4,286	3,813
Expenses of Commission and Board ...	1,822	1,221	185	86	24
Salaries of officers... ..	...	...	...	175	325
Administration (including fencing) ...	...	...	304	382	1,063
Miscellaneous (surveys, valuations, &c.)	52	527	801	555	540
Totals	2,090	5,084	9,146	5,484	5,765

Details of expenditure for the year are given in the statement of accounts following Appendix A. It will be recognised that the annual cost of the Scenery Preservation Board is a very small proportion indeed of the total expenses, which are chiefly made up by the purchase of land, administration, fencing, surveys, and valuations.

NORTH ISLAND MAIN TRUNK RAILWAY SCENIC RESERVES.

Since last November the recommendations of the Scenery Preservation Board as to comprehensive and adequate scenic reservations along the route of the popular North Island Main Trunk Railway, which had been sanctioned by the Government, were advanced a further stage by survey parties having been kept steadily at work in surveying and laying off the minimum areas that are deemed absolutely necessary for reservation in the immediate vicinity of the line, in order to preserve the most striking features of the scenery for the admiration of travellers and the protection of the lower-lying lands beneath. The first reserve surveyed was in the immediate vicinity of Ohakune, and comprises a striking forest-clad bluff (Raetihi No. 5B Block) in full view of the railway. It forms an impressive background to the view from the train, and is generally looked upon as a magnificent example of the Waimarino bush scenery. Other reserves along the line near Turangarere and Whakapapa Gorge are now under process of survey, and it is to be hoped that by the publication of next year's report a most valuable addition will have been made to the present reserves.

Among the lands now being surveyed are some 2,000 acres in the Whaharangi Block, which front the Raetihi-Pipiriki Coach-road for six miles, and partially adjoin the Wanganui River for about three miles. The famous "Dress-circle" is included among these reservations, and some very picturesque scenery; whilst an historical rata-tree known as "King Dick" is among the objects of interest on the route. It is hoped that the areas will be completely surveyed and gazetted by the end of the year.

REASONS FOR RESERVATION.

It cannot be too often pointed out that the Government in making these reserves is actuated by a desire to interfere as little as possible with settlement, and only to reserve those lands which cannot support more than a comparatively sparse population, and from their generally rugged character are not well adapted for agricultural or pastoral purposes, whilst the destruction of the bush on the hill-sides would undoubtedly tend to seriously damage the lower-lying lands, and choke up the streams that at present run harmlessly down the valleys; whilst in many other respects the reservations will confer a boon on the community at large, irrespective of their scenic value. This policy has been strenuously followed from the very first, and in no case has any genuine complaint been made that farm-land has ever been withheld from settlement for æsthetic purposes.

SCENERY PRESERVATION BOARD.

Owing to the departure for England of Mr. Donne, General Manager of the Tourist Department, and the alteration in the status of that Department, it will be necessary to bring in an amendment of the Scenery Preservation Act, and to reconstruct the *personnel* of the Board, as at present it is very difficult to obtain a quorum at any meeting.

Mr. T. E. Donne has always taken a lively interest in scenery-preservation, and his departure from New Zealand affords a fitting opportunity of noticing it.

The report of the Board appears in Appendix D.

INSPECTIONS.

From the visits paid by the Inspector of Scenic Reserves to many of the areas under his supervision, it is gratifying to know that they are all in pretty good condition, are very little infested with noxious weeds, and have in no way been detrimentally affected by the periodical fires that occur, particularly in the North Island. His report appears in Appendix B.

MOKAU RIVER.

It has been the custom each year to devote a special article to a scenic resort in the Dominion. In the report of 1906-7 a full account (illustrated by photographs and plans) of the North Island Main Trunk Railway route was given, and the public and all concerned were thus made fully aware of intended reservations. In the ensuing year (1907-8) a similar account was given of the Wanganui River scenic proposals between Taumarunui and Wanganui; and from time to time these recommendations are given effect to. This year an interesting account of the Mokau River scenery is given by the Secretary of the Board (Mr. W. R. Jourdain), (*vide* Appendix D); and its perusal, together with an inspection of the photographs and plans that accompany it, will show that, though this charming river has not in the past been much visited, and is not nearly so well known as the Wanganui, yet there is not much doubt that in future, when better accommodation and means of access are provided, it will rank second to none as a scenic resort.

INQUIRY UNDER THE PUBLIC WORKS ACT.

In giving effect to the recommendations of the Scenery Preservation Board as to the acquisition of Native lands on the Wanganui River bank, it was necessary to acquire several areas of land near Galatea and Athens. Due notice having been served upon the owners and lessees of these lands, objections to the taking were raised by some of the lessees affected, and an inquiry under the Public Works Act was demanded. This was agreed to by the Minister of Public Works, who directed the Stipendiary Magistrate at Wanganui, Mr. R. L. Stanford, to hold it. The Department was represented by the Crown Prosecutor at Wanganui (Mr. Clifford Marshall) and the Secretary of the Scenery Preservation Board; and, after hearing their explanation of the reasons for taking the land, and the legal position of the matter, together with the evidence of the counsel and witnesses who objected to the taking, the Magistrate reported that no case whatever had been made out against the taking of the land, which was strictly in accordance with the law, and that "none of the objections by either objectors showed any private injury done by the taking of the said land for which due compensation is not provided by the said Act."

GENERAL.

It is hoped to continue during the current year the surveys of the North Island Main Trunk Railway route and the Wanganui River bank scenic reserves, and, if satisfactory progress can be made with their reservation, other important localities will be similarly dealt with, and the most pressing needs of scenery-preservation will then be satisfactorily provided for.

It has been repeatedly asserted, and it is widely believed, that isolated clumps of native bush, or even long strips of the same, will not survive for many years when the surrounding country is all cleared, and numerous examples are quoted of settlers who have tried to preserve small areas of bush on their holdings, mainly *for the purpose of affording shelter for their stock*, and how the bush has gradually disappeared. It is well to explain once more why such areas never survive. It invariably happens that in these cases stock are allowed free access to the bush, with the inevitable result that the undergrowth is either eaten or trampled down; then the bleak winds sweep through unrestrained, and the bush dies out. But over and over again, when the bush is securely fenced off so that the undergrowth and young scrub can grow up, the trees have been preserved, and after twenty years of exposure in open country are a standing monument of what care and forethought will do.

APPENDICES.

APPENDIX A.

RESERVES MADE IN 1908-9 UNDER THE SCENERY PRESERVATION ACTS AND "THE PUBLIC WORKS ACT, 1908."

Recom- mendation No.	Local Name or Locality.	District.	Area.	Date of Proclamation in Gazette.
Auckland District.				
			A. R. P.	
66, 67	North Rotorua Scenic Reserves	Section 6, Block VIII, Rotorua Survey District	1 1 10	16 July, 1908.
		Section 31, Block IV, Rotorua Survey District	27 2 0	16 " "
		Section 30, Block IV, Rotorua Survey District	2 2 8	16 " "
		Block V, Rotoiti Survey District	1,450 0 0	16 " "
		Section 12, Block VIII, Rotorua Survey District	1,685 0 0	16 " "
86*	South Wairoa River Bank (near Hu- nua)	Section 30A, Block XII, Wairoa Survey District	1 0 9	5 Nov., "
		Section 81B, Block XII, Wairoa Survey District	14 3 8	5 " "
		Sections 98A, 99A, 100A, Block XII, Wairoa Survey District	16 1 0	5 " "
		Section 101A, Block XII, Wairoa Survey District	7 1 0	5 " "
		Sections 110A, and 111A, Block XII, Wairoa Survey District	16 0 0	5 " "
		Section 112A, Block XII, Wairoa Survey District	2 3 0	5 " "
		Section 113A, Block XII, Wairoa Survey District	8 3 20	5 " "
		Middle portion of Section 41, Block XVI, Hukerenui Survey District	14 0 34	5 " "
		North middle portion of Section 41, Block XVI, Hukerenui Sur- vey District	14 0 28	5 " "
		North-east portion of Section 41, Block XVI, Hukerenui Survey District	10 2 38	5 " "
105*	Wairo limestone rocks	South-west portion of Section 40, Block XVI, Hukerenui Survey District	8 3 29	5 " "
		Section 11, Block XI, Wairere Survey District	128 0 0	12 " "
		Section 2, Block XIV, Coroman- del Survey District	104 2 10	26 " "
79	Wairere Falls ...			
78	Coromandel-Mercury Bay Road Scenic Reserve			
63	Ruakuri Caves Scenic Reserve	Block X, Orahiri Survey District, part of Hauturu East No. 3B, Section 3	23 2 0	14 Jan., 1909.
		Block X, Orahiri Survey District, part of Hauturu East No. 3B, Section 5	43 0 0	14 " "
		Block X, Orahiri Survey District, part of Hauturu East No. 3B, Section 4	18 3 0	14 " "
		Section 8, Block X, Orahiri Sur- vey District	14 2 0	14 " "
86*	South Wairoa River bank	Section 102, Block XII, Wairoa Survey District	44 0 19	4 Feb., "
		Section 103A, and part Section 103, Block XII, Wairoa Survey District	11 0 0	4 " "
			3,668 3 13	

* Scenery Preservation Commission number.



ORIERI SCENIC RESERVE, PELORUS SOUND.

[*Tourist Dept. photo*]



STAFFORD POINT SCENIC RESERVE, PELORUS SOUND.

[*T. Humphries, photo.*]



VIEWS OF WHAKAPAPA GORGE, NORTH WAIMARINO.

[C. T. Salmon, photo.]



BOILING LAKE, WITH ICE CLIFFS, ON MOUNT RUAPEHU.

[C. T. Salmon, photo.]



SANDSTONE ROCK AT ENTRANCE, MOKAU RIVER.

[W. A. Collis, photo.]

APPENDIX A.—Reserves made in 1908-9 under the Scenery Preservation Acts and "The Public Works Act, 1908"—*continued.*

Recommendation No.	Local Name or Locality.	District.	Area.	Date of Proclamation in Gazette.
<i>Taranaki District.</i>				
55A	Corbett Road Historic Reserve	Subdivision 2 of Section 85, Waitara West District, Block VII, Paritutu Survey District	A. 0 R. 0 P. 25	10 Sept., 1908.
130*	Pukemiro Scenic Reserve	Portion of Section 7 (Native Reserve), Block III, Waitara Survey District	7 2 18	25 Mar., 1909.
			7 3 3	
<i>Wellington District.</i>				
19	Pongaroa Scenic Reserve	Sections 1 to 12, Block IV, Town of Pongaroa	5 1 35	30 July, 1908.
		Sections 1, 2, 3, 10, 11, 12, 13, Block VII, Town of Pongaroa	2 3 11	30 " "
		Parts of Sections 1 and 5, and Sections 6 to 16, Block XII, parts of Sections 3 to 9 and Sections 11 and 13, and part 14, Block XIII, part of 16, and Sections 14 and 18 to 24, Block IX, Town of Pongaroa, and Section 14, Suburbs of Pongaroa, and closed roads	48 1 38	30 " "
75	Momahaki Scenic Reserve	Section 16, Block IX, Momahaki Survey District	526 0 0	22 Oct. "
77	North Waimarino	Section 1, Block VI, Hunua Survey District	68 0 0	22 " "
		Section 2, Block VI, Hunua Survey District	4 2 37	22 " "
		Section 3, Blocks VI and X, Hunua Survey District	11 0 0	22 " "
		Section 4, Block VI, Hunua Survey District	27 0 28	22 " "
76	"	Section 10, Block XI, Kaitieke Survey District	73 0 0	19 Nov., "
74	Mangatiti Scenic Reserve	Section 35, Block I, Aohanga Survey District	5 2 16	4 Mar., 1909.
			772 1 5	
<i>Marlborough District.</i>				
82	Kumutoto Bay	Part of Section 2, Block I, Arapawa Survey District	322 0 0	20 Aug., 1908.
		Section 3, Block I, Arapawa Survey District	237 0 0	20 " "
83	"	Section 11, Block I, Arapawa Survey District. (Part Section 2, Tareamona Block.)	8 2 0	18 Feb., 1909.
89	Pelorus Sound	Section 10, Block VII, Orieri Survey District	29 0 0	4 Mar., "
			596 2 0	

* Scenery Preservation Commission's number.

Summary.

District.					Number.	Area.		
						A.	R.	P.
Auckland	...	...	...	...	7	3,668	3	13
Taranaki	...	...	...	...	2	7	3	3
Wellington	...	...	...	...	5	772	1	5
Marlborough	...	...	...	...	3	596	2	0
Totals, 1908-9					17	5,045	1	21
Reserved up to 31st March, 1908					117	33,931	3	9
Grand totals					134	38,977	0	30

STATEMENT OF ACCOUNTS showing the Amounts expended, and the Purposes to which the Money so expended have been applied, for the Year ended 31st March, 1909.

	Amount expended.		
	£	s.	d.
Purchase of land (private land),—			
Onamalutu Scenic Reserve (Marlborough)	4	5	7
Paraparaumu Scenic Reserve (Block IX, Kaitawa)	34	0	0
Part Section 209, Block IV, Belmont	273	18	9
Rotorua-Okoroire Scenic Reserve (Sections 11, 12, 14, and 16, Block XIV, and Section 12, Block XV, Rotorua)	359	5	4
Sections 11, 12, Block XVI, Tiriraukawa	82	0	0
Taieri Native Reserve (Sections 29, 30, and part 28)	300	0	0
Wairoa River Banks Scenic Reserve (Sections 112A and 113A, Wairoa)	17	8	9
	1,070	18	5
Credit, Wellington City Council,—			
Balance of share of purchase-money of Wilton's Bush	59	0	0
		1,011	18 5
Purchase of land (Native land),—			
Kumutoto Scenic Reserve (Block I, Arapawa)	917	9	2
Mangaotaki Scenic Reserve (part Karu-o-te-whenua B No. 2B No. 5A Block)	155	0	0
Meeting of the Waters, New Plymouth (Block X, Paritutu)	64	8	9
Muaupoko A No 2 Block (part), Block X, Kaitawa)	405	4	9
Pipiriki Mineral Springs (Block X, Rarete)	45	0	0
Tongoio Falls Scenic Reserve (Block IV, Puketapu)	151	17	2
Wairua Falls Scenic Reserve (Blocks IV and XVI, Mangakahia)	146	14	5
Waitomo Caves (Block X, Orahiri)	915	12	1
		2,801	6 4
Administration (including fencing)		1,063	12 1
Boards' expenses (meetings, &c.)		23	17 0
Inspector, £300 ; Secretary, £25		325	0 0
Miscellaneous (surveys, valuations, &c.)		539	11 4
Total		£5,765	5 2

APPENDIX B.

REPORT BY THE INSPECTOR OF SCENIC RESERVES.

DURING the year I have inspected fifty-five scenic reserves in the Auckland Land District, with an area of 14,746 acres ; and in the Wellington Land District I have inspected forty-four reserves, with an area of 2,616 acres ; or, altogether, ninety-nine reserves, with a total area of 17,362 acres. In addition to the foregoing, I have reported on the Whangape Hot Springs, Waiakake Bush, Day's Bay Reserve, bush on Puketoi Range, Makuri Gorge, milling operations, Mokau River, Turakina Bush, and proposed Rangitikei reserves.

In the middle of November Mr. C. T. Salmon, an authorized assistant under Mr. E. P. Turner, was started on the delimitation of the proposed reserves along the railway near Ohakune ; and at the beginning of March Mr. J. H. Lindsay was put on to cut out the proposed reserves near Turangarere. On inspection of the several pieces of bush that had been proposed as reserves by the late Commissioners and the Preservation Board, it was found that in several instances between Mangaweka and Turangarere the bush had been leased to millers, and spoiled for scenery purposes ; it seems, therefore, advisable that the Act should be so amended that when it has been decided to acquire a parcel of land for scenic purposes the owner or any other person could be prevented from damaging it in any way. It would be an advantage, also, if when any parcel of land is proclaimed a scenic reserve it *ipso facto* came under the provisions of the Scenery Preservation Act.

The surveys of the parcels of Native land to be acquired along the North Island Main Trunk Railway will be completed about the middle of April, and then I propose (with your approval) putting the two survey parties to cut out the proposed reserves along the Wanganui River.

Damage by Grazing.—In nearly every reserve inspected I found that stock were in the habit of grazing ; so far, however, in most reserves the damage done is comparatively slight ; and if stock be hereafter excluded the undergrowth will soon recover. Some of the small reserves, however, close to townships have been looked upon as commons, and the settlers have been permitted to run their cattle, horses, &c., *ad libitum*. If our reserves are really to be preserved in their natural beauty, it will be necessary to prohibit this wholesale grazing of stock. I pointed out at some length in a report sent in in November how authorities in other countries were all of opinion that grazing in forests is extremely detrimental. It is the same here as elsewhere : stock destroy the ferns, mosses, shrubs, and young trees, trample down the soft and spongy natural surface of the ground, drying winds sweep in, and sooner or later the big trees themselves die or are blown down. Stock also are one of the chief factors that aid the spread of noxious weeds, for they carry many seeds in their dung, and by trampling down the native undergrowth make a suitable bed for the growth of wind-blown seeds and the seeds

they deposit themselves. Fires also will spread in forests in which stock have grazed, as in such forests the undestroyed undergrowth and trees are always parched, and ready to fire from the merest spark. A forest in which the undergrowth has been destroyed loses its capacity for holding back the water from heavy rains; the effluent streams rapidly swell, inundate the lower lands, and then quickly dry up, causing great inconvenience by the consequent shortage of water. In hilly country the destruction of the bush is generally followed by the surface-soil slipping into the streams, and leaving bare rock-faces. In the Rhone District alone, in France, it is estimated that floods (due principally to the deforesting of the high lands) have caused damage to the extent of several millions in a comparatively short number of years. In our own country, also, floods are even now much more destructive than when the upper parts of the rivers and tributaries flowed from forest-clad lands. The average pioneer farmer is not a travelled man nor a reading man; the forest and scenery reserves are to him a mere fad and waste of good land and money; and he values them only so long as he can run his stock in them without the inconvenience of paying rent. Even on his own farm he seldom preserves clumps of native bush to afford his stock shelter from winter winds and summer heat.

Noxious Weeds.—As a rule the reserves inspected have been free from noxious weeds; a few, however, in the Auckland District had a few patches of furze and blackberries. In the Wellington District the Californian thistle and the burr thistle have spread into some of the reserves, particularly in the Rangitikei district.

Animal Pests.—In the Auckland District rabbits may be seen in the more accessible reserves, but they are so few as not yet to be a pest. In Wellington District, also, the reserves are so far not seriously troubled with rabbits. There is an exception, however, in the Tongariro National Park, for there I find that rabbits and hares have become so plentiful as to make it advisable to at once take measures to prevent their further increase.

Fires.—The greatest danger we shall always have in managing our reserves is from fires. The bush on some of the reserves inspected in the Wellington District I found quite destroyed by fires that occurred in the summer of 1908. In spite of last summer having been a dry one there was not much damage done by fire. There were a few small fires on the Tongariro Park, and one near the mountain hut has rather damaged the surroundings of the beautiful Ohinepango Spring. I have sent to nearly every owner adjoining a reserve a circular reminding him of his liability for fires; and I have nailed up one or more notices on boards warning the general public that the reserves must not in any way be damaged. I know no really effective measure to protect bush from fire, but I think it is a most certain disadvantage to have any open grass, scrub, or fern land within a reserve; and should such exist it should either be excluded, or else an inner fence should be erected, and stock allowed on the open part only, to keep it eaten down. In any future fencing arrangements I would strongly urge that nothing but the big trees within 2 chains of the fencing-line be allowed to be cut down within the reserve boundary, as then the native shrubs will soon spring up in the charred margin of the bush, and the necessity for grazing will then be obviated.

It is a great mistake for any one to assert that fires do not spread in green bush. Along the Main Trunk line I saw burnt bush which was the result of a fire that originated some miles away.

Fires are often caused by workmen when laying out new roads. The scrub, fern, &c., are in the way, and the easiest method to get rid of it is to burn it off, and it frequently happens that in doing so hundreds of acres of the contiguous lands are burnt off. It is the frequent burning-off of the fern and scrub that is often responsible for the very impoverished condition of, open country, as, after fires, heavy rains wash away all the ash and natural humus. It would be advisable if the Public Works and Roads Departments instruct their foremen never to burn off for road-formation when going through reserves.

Indigenous Birds.—Many of our native birds are fast becoming rare, and one of the objects of our reserves is that they may afford a sanctuary for native-bird life. In the Auckland District such birds as fantails, tomtits, grey-warblers, silver-eyes, the small and large cuckoo, and the kingfisher are fairly plentiful; parrakeets kakas, pigeons, wekas, landrails, kokakos, robins, and whiteheads are generally rare, and the bell-bird seems to have become extinct. On the reserves near Rotorua, I was informed that a great amount of pigeon-slaughtering was done last season, and from the number of used cartridges I saw on the ground there was no doubt of the truth of the information.

In the Wellington District I found that tuis, fantails, tomtits, grey-warblers, the two cuckoos, kakas, parrakeets, whiteheads, and riflemen are generally plentiful. The whitehead (supposed to be nearly extinct) I found in nearly every reserve of any size, even close to towns. Kingfishers I saw few of. The bell-bird and kokako are scarce, while the huia seems to have become extinct as far as Wellington District is concerned. Pigeons are now rare, except in the Waimarino Forest. I am credibly informed that last winter people even camped in the bush near Ohakune, and shot pigeons in hundreds to sell in the large towns. The sale of the native pigeon should be more strictly prohibited than the sale of trout. I find that blackbirds, thrushes, yellowhammers, and sparrows have spread to the most out-of-the-way places.

Fencing.—In most instances I found adjoining owners willing to pay one-half of the cost of the fence between their land and the reserves, but the boundaries to be fenced are altogether of such a great length that the fencing can only be done by degrees. Trespassing on reserves near towns is generally done by the stock of people who, not having enough land of their own, turn their animals into the public roads. These people could probably be stopped by a notice in the local journals that their stock would be impounded.

In laying out township-sites it has not heretofore been the custom to make reserves for future water-supply, and in most country towns the water-supply is now obtained from an area that has

become deforested. In all future surveys of township-sites it would be highly desirable to reserve a fairly large area of bush on the banks of the nearest suitable streams so that it might serve as a safe catchment-area, and also for the usual purposes of our scenic reserves.

In handing over scenic reserves to local bodies, or to the control of Domain Boards, there should be strict provision that grazing should not be allowed, and that the bush should in no way be damaged. In most instances where local bodies have got the control of scenic reserves they allow grazing, and in some cases have even cleared the land for sports-grounds.

In cutting up Crown land it is the rule to reserve 1 chain on each side of all streams of half a chain or more in width. These reserves are always shown as roads on plans, and eventually get into the control of local bodies. As the reservation is not for wheel traffic, but chiefly to give the public the right of getting along the river, and to preserve the vegetation that protects the banks, it would be as well if these reservations were kept in Government control, as the local bodies allow the adjoining settlers to clear the banks of the bush.

The necessity for the preservation of forests and spots of scenic interest still continues to be preached in Europe and America. The late President of the United States has worked strongly for the conservation of the forests. In England it has been decided to reforest portions of the coast that are suffering from erosion. It is proposed to replant large areas of deforested land in Scotland and Ireland. Several abbey and castle ruins in England have been purchased by private subscriptions, and some have been given by their owners for the preservation of spots, the history of which is part of the history of the country. In France the Government has purchased the palace at Avignon, where the Popes in stormy mediæval times had to reside. In England the Government, as such, takes no action; all is left to private effort. It may safely be said that in this Dominion we now have reserves that are equal to those of any country; and it is to be hoped that all will realise the importance of preserving them from destruction, so that they may be enjoyed by those who will sooner or later succeed us.

E. PHILLIPS TURNER,
Inspector of Scenic Reserves.

APPENDIX C.

REPORT OF THE SCENERY PRESERVATION BOARD.

DURING the year only three meetings of the Board were held: The Auckland Board met on Thursday, the 1st October, 1908, and many pressing matters were dealt with, and statutory recommendations submitted to His Excellency the Governor; the Wellington Scenery Preservation Board met on the 11th September, 1908; and the Marlborough Scenery Preservation Board, after visiting the Marlborough Sounds, met at Blenheim on the 17th October, 1908.

Several recommendations contained in the above have been given effect to, and the necessary proclamations have appeared from time to time in the *New Zealand Gazette*. A list of the recommendations during the years is appended.

As I am now relinquishing the position of Surveyor-General, my duties as Chairman of the Scenery Preservation Board cease at the same time. My successor as Surveyor-General (Mr. John Strauchon) will be the new Chairman of the Board, and from his extensive knowledge of the Dominion he will be able to carry on the work which has been so satisfactorily accomplished by the late Commission between 1903 and 1906, and by the present Board since the latter date.

THOS. HUMPHRIES,
Chairman, Scenery Preservation Board.

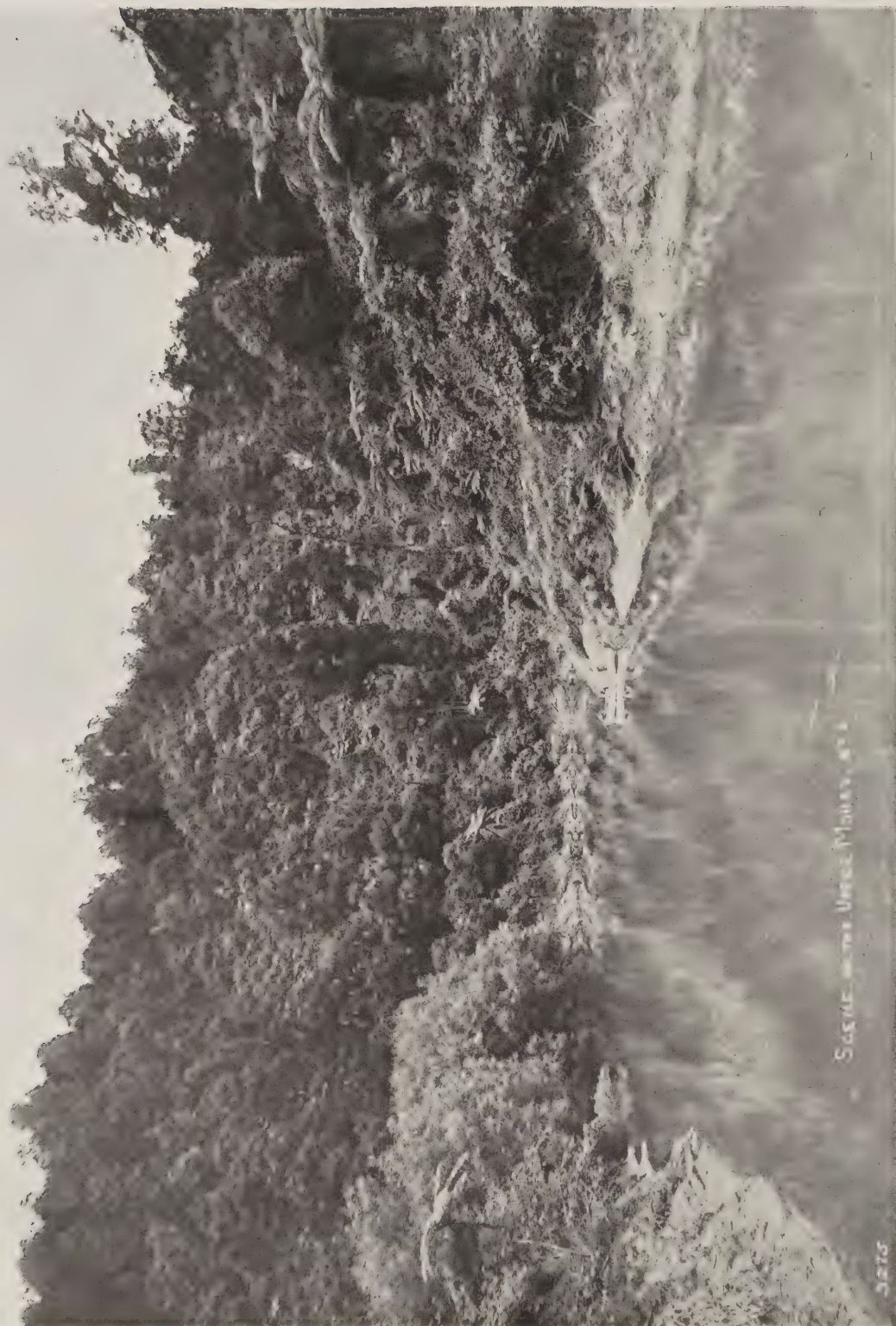
SCHEDULE OF RECOMMENDATIONS OF THE SCENERY PRESERVATION BOARD FOR THE YEAR ENDED 31ST MARCH, 1909.

Recom- mendation No.	Locality.	Area.			Action taken.
		A.	R.	P.	
Auckland District.					
78	Area in Blocks XIV and XV, Co. omandel Survey District	105	0	0	Proclaimed as a reserve in <i>Gazette</i> of 26th November, 1908.
79	Wairere Falls, Blocks XI, XV, Wairere Survey Distrtict	175	0	0	Proclaimed as a reserve in <i>Gazette</i> of 12th November, 1908.
80	Part Section 2, Waitakerei, Block XII, Kumeu Survey District	15	0	0	Held over.
81	Natural tunnel on Mangapohue Road, Block XI, Kawhia South Survey District	100	0	0	"
...	Adoption of recommendations of former Scenery Preservation Commission not yet acted upon	...			Under consideration.

[W. A. Collis, photo.]

LOOKING UP MOKAU RIVER, ONE MILE FROM MOUTH.





SAGUE MOUNTAIN, UPPER MOKAU, 1911

TWELVE MILES UP THE MOKAU RIVER.

[W. A. Collins, photo.]

SCHEDULE OF RECOMMENDATIONS OF THE SCENERY PRESERVATION BOARD—*continued*.

Recommendation No.	Locality.	Area.	Action taken.
<i>Wellington District.</i>			
70	Papaitonga Lake, Levin, Block II, Waitohu Survey District	48 2 0	Held over.
71	Part Section 5, Block XIII, Mount Cerberus Survey District (educational reserve)	50 0 0	Under action.
72	Section 14, Block XVI, Apiti Survey District	34 0 0	"
73	Section 4, Block I, Mangahao Survey District	71 0 0	"
74	Part Section 13, Block I, Aohanga Survey District	5 2 16	Proclaimed as a reserve in <i>Gazette</i> of 4th March, 1909.
75	Section 2A, Block IX, Momahaki Survey District	526 0 0	Under action.
76	Section 10, Block XI, Kaitieke Survey District	73 0 0	Proclaimed as a reserve in <i>Gazette</i> of 19th November, 1908.
77	Sections 1, 2, 3, 4, Block VI, Hunua Survey District.	110 0 0	Proclaimed as a reserve in <i>Gazette</i> of 22nd October, 1908.
<i>Marlborough District.</i>			
82	Kumutoto Scenic Reserve, Block I, Arapawa Survey District	877 0 0	Proclaimed as a reserve in <i>Gazette</i> of 20th August, 1908.
83	Kumutoto Scenic Reserve (extension)	8 2 0	Proclaimed as a reserve in <i>Gazette</i> of 18th February, 1909.
84	Ngaruru Reserve, Tory Channel, Sections 2, 3, Blocks III and IX, Arapawa Survey District	518 0 0	Held over.
85	Ngakuta Reserve, Part Section 5, Block XI, Linkwater Survey District	6 0 0	"
86	Sections 22, 23, 24, 65, 66, Block IX, Wakamarina Survey District	372 2 0	"
87	Sections 10, 11, Block VII, Linkwater Survey District	309 0 0	"
88	Section 6, Block II, Linkwater Survey District	131 0 0	"
89	Section 10, Block VII, Orieri Survey District	29 0 0	Proclaimed as a reserve in <i>Gazette</i> of 4th March, 1909.
90	Sections 10, 11, Block III, Orieri Survey District	72 0 0	Under consideration.
91	Sections 8, 9, Block VII, Orieri Survey District	209 0 0	"
92	Sections 13, 14, Block XI, Orieri Survey District	63 0 0	"
93	Tennyson Inlet: areas in Tennyson Survey District and Orieri Survey District (Crown lands)	7,174 0 0	Held over.
	Tennyson Inlet: leasehold land	280 0 0	
	" freehold land	698 3 20	
	" islands	160 0 0	
...	" reserve	10 0 0	Under consideration.
	Adoption of recommendations of former Scenery Preservation Commission not yet given effect to	...	

APPENDIX D.

REPORT ON THE MOKAU RIVER.

(By W. R. JOURDAIN, Secretary to the Scenery Preservation Board.)

Scenic Appearance.

IN many respects the Mokau River is unrivalled from a scenic point of view, and it undoubtedly presents one of the finest examples of natural vegetation in the Dominion. The comparative lowness of the immediate banks, and the gradual rise of the land at their back, together with the height of the ranges and cliffs which bound the valley through which the river runs, combined with the luxuriance of the forest-growth on most of the land within sight, renders a trip up the river one of the most enjoyable and interesting that can be taken. The many picturesque reaches and bends of the Mokau, and the general narrowness of the stream, makes it difficult to get an extended view of the river from any place, and one is continually coming round a bend to view a fresh picture of delight. The vegetation seen from the stream includes such a wealth of ferns of all varieties, nikau palms, ratas, and the many species of forest-trees that the eye is never satiated whilst viewing the beautiful banks which confine the placid waters of the Mokau, occasionally broken by a rippling rapid, but for the most part gleaming in untroubled blue, with a thousand lovely reflections on their surface of the surrounding trees and ranges. There are few long straights; there are few expanses of bare and frowning cliffs, so frequently seen on other rivers in New Zealand; but mile after mile is traversed through a densely wooded and picturesque valley shining in the sunlight in every shade of living green, varied here and there by a flaming rata-tree ablaze in its crimson blossoms, or the creeping convolvulus with its snowy flower-bells, the wild clematis, and the numerous native flowering plants and shrubs which tend to diversify the sombre green of the dense bush, and the few clearings and traces of settlement met with serve to show to the best advantage the scenic beauty of this hitherto-unspoilt part of our Dominion, so rich and famous in its botanical wealth.

Character of Vegetation.

One noticeable feature of the vegetation on the Mokau is the apparent lack of milling-timber in close proximity to the river, and it would appear that most of the trees suitable for sawmilling purposes are to be found outside the belt of 40 chains which forms the limit of scenic recommendation. The only sawmill now in operation is situated on the bank of the Manga-awakino Stream, and operates up the course of that valley. Consequently there is no commercial reason for the destruction of the bush that now clothes the banks and preserves them from denudation occasioned by the strong freshes in the river, and heavy downfalls of rain that periodically visit the locality. The loose nature of the soil on the banks renders some such protection imperative, and if the bush is cut down some sort of close sward or vegetation must replace it in order that the banks may not continually "cave in" and assist to choke the channel, and render navigation very difficult. Even at present it frequently happens that willow-trees, which have been indiscriminately planted on the banks, have no secure hold on the soil, and, their roots becoming undermined by freshes, whole trees, with a large portion of the bank, fall headlong into the river, and require to be removed at heavy expense, as otherwise they form dangerous snags. No doubt the Department of Agriculture can suggest a suitable grass to plant along the banks, such as the "buffalo-grass" used for that purpose at Mildura, Victoria, or "cow-grass" (a species of red-clover, *Trifolium pratense*, variety *perenne*), or a creeper such as ice-plant, ivy, &c., or a suitable small shrub. Particularly just above the coal-mines these willows have proved most detrimental, as their roots do not extend deep enough to grip the firm soil beneath the covering of the banks, and the trees jut out far into the channel.

Mr. E. Phillips Turner, Inspector of Scenic Reserves, has furnished the following interesting report on the botany of the river:—

Botanical Sketch of the Mokau Valley.

"The forest which covers the deep valley through which the Mokau River takes its sinuous course is remarkable for the variety and tropical luxuriance of its vegetation; and at this time of the year, when most plants are putting forth new fronds and shoots, the nature-lover finds here his paradise. In ascending the river from the estuary the eye wanders from beauty to beauty: here it is caught by the gorgeous crimson blossoms of a huge rata displaying its brilliance above the tops of smaller trees; here it is a tall tree-fern spreading its feathery fronds in graceful curve; here it is the nikau palm peeping through the roof of lower trees; here it is the native convolvulus, with its beautiful snow-white campanulate flowers, or the soft leafage of the *muehlenbeckia* hanging in festoons or draping the smaller trees; here the scandent rata, in search of light, completely clothes with its light-green leaves the trunks of tall trees; on this small opening in the bush the toetoe-kakaho waves its silky plumes; on this steep face hang in beautiful imbrication the young fronds of the piupiu fern (*Lomaria capensis*), shaded from coppery-red to light green; here it is the dark, glossy green of the karaka or the epiphytic puka, or the feathery pendulous foliage of the kowhai; all this varying beauty simply fascinating the eye of the beholder.

"The plants that compromise the flora of this district are not equally distributed: as the course of the river is at right angles to the sea, so climatic conditions fast change. On the whole, tawa, tawhero, and rata are the dominant trees; but for the first five miles from the mouth of the river pukatea, karaka, mangeao, rewarewa, puriri, houhere, ake-rautenga, and kowhai are plentiful; while there are also in small quantity heketara, wharangī, ngaio, titoki, akepiro, and *Olearia Solandri*, with most common bush shrubs in greater or lesser quantity.

" From 5 to 10 miles, tawa, rata, and tawhero still predominate, with a good deal of heketara and the common bush shrubs, whilst ngaio, wharangi, akepiro, and *Olearia Solandri* have disappeared; there is less ake-rautenga, but occasional rimu and kahikatea come in. Tree-ferns are more abundant, and nikau fairly plentiful.

" From 10 to 12 miles red-beech is seen on some of the spurs, but tawa, rata, and tawhero still are dominant; kowhai and karaka are scarce, the patete is plentiful, also lianes and the beautiful fern *Lomaria capensis*.

" From 12 to 18 miles there have been several clearings on which mills have been erected, but none are at present working. In this stretch spurs with red-beech are inserted; nikau palms, too, are plentiful.

" From 18 to 23 miles, patete, houhou, and the wheki tree-fern become abundant; whilst karaka and rewarewa are absent, and other coastal trees rarer.

" From 23 to 26 miles Banks's cabbage-tree and fuchsia are common, and mingi and neinei are noticed on the faces of red-beech spurs.

" From 26 to 28 miles willows have taken up long stretches of the banks, and patches of sedge and toetoeakakaho vary the scenery.

" From 28 to 30 miles the valley becomes more confined, the stream is often rapid, and the spurs often end in bold precipitous cliffs. Red-beech is here more plentiful, there is a great abundance of tree-ferns and lianes, and pukatea, houhou, mahoe, fuchsia, heketara, and mangeao become more plentiful.

" In different parts of the Mokau Valley some rare plants are found: at one place the *Metrosideros florida*, variety *aurata* (golden rata) is found; the beautiful ferns *Lindsaya viridis*, and *Marattia fraxinea* (parareka, once used as food by the Maoris) were seen. There was no opportunity for a thorough investigation of the bush, but from the launch I recognised the following trees and shrubs, named in the order of their relative numerical importance: Rata (*Metrosideros robusta*), tawa (*Beilschmiedia tawa*), tawhero (*Weinmannia sylvicola*), pukatea (*Laurelia novae-zealandiae*), rangiora (*Brachyglottis repanda*), red-beech (*Nothofagus fusca*), hinau (*Eleocarpus dentatus*), rewarewa (*Knightia excelsa*), mangeao (*Litsea calicaris*), two tea-trees (*Leptospermum scoparium* and *ericoides*), raurekau (*Coprosma grandifolia*), kowhai (*Sophora tetraptera*), puka (*Griselinia lucida*), houhou (*Nothopanax arboreum*), mahoe (*Melicactus ramiflorus*), patete (*Schefflera digitata*), karaka (*Corynocarpus laevigatus*), akerautenga (*Dodonea viscosa*), houhere (*Hoheria populnea*), ramarama (*Myrtus bullata*), tipau (*Myrsine Urvilleanii*), puriri (*Vitex lucens*), karamu (*Coprosma lucida*), heketara (*Olearia Cunninghamhamii*), putaputaweta (*Carpodetus serratus*), fuchsia (*Fuchsia excorticata*), makomako (*Aristolochia racemosa*), tutu (*Coriaria ruscifolia*), koromiko (*Veronica salicifolia*), titoki (*Alectryon excelsum*), hangehange (*Geniostoma ligustrifolium*), tarata (*Pittosporum eugenoides*), *Pittosporum Huttonianum*, *Olearia Solandri*, wharangi (*Melicope ternata*), kahikatea (*Podocarpus dactyloides*), taunoka (*Carmichaelia australis*), porokaiwhiria (*Hedycarya dentata*), rimu (*Dacrydium cupressinum*), papapa (*Alseuosmia macrophylla*), lancewood (*Pseudopanax crassifolium*), matai (*Prumnopitys spicata*), mingi (*Leucopogon fasciculatum*), inaka (*Dracophyllum longifolium*), neinei (*Dracophyllum latifolium*), tawheowheo (*Quintinia serrata*), miro (*Podocarpus ferrugineus*), totara (*Podocarpus totara*), ngaio (*Myoporum laetum*), akepiro (*Olearia furfuracea*), *Corokia cotoneaster*, waiuatua (*Rhabdothermus Solandri*), and parataniwha (*Elatostemma rugosum*). Palms are represented abundantly by nikau (*Rhopalostylis sapida*). The kiekie (*Freyinetia Banksii*) is plentiful; and other climbers are *Muehlenbeckia australis* and *complexa*, *Parsonsia heterophylla*, *Calystegia tuguriorum*, *Passiflora tetandra*, lawyer (*Rubus australis*), supplejack (*Rhipogonum scandens*), *Metrosideros scandens*, *hypericifolia*, *florida*, and *florida* variety *aurata*. (*Arundo conspicua*) toetoeakakaho was seen; *Gahnia xanthocarpa* and *Cladium Sinclairii* were seen; *Phormium tenax* and *Colensoi* were seen. In ferns there were noticed *Cyathea medullaris* and *dealbata*, *Dicksonia squarrosa* and *Hemitelia Smithii*, *Lomaria capense*, *Lindsaya viridis*, *Gleichenia Cunninghamii*, and *Marattia fraxinea*; there were numerous others, not identifiable from the launch.

" *Milling-timber.*—It may safely be said that for thirty miles from the mouth of the Mokau River for a width of 30 chains on each side of the river there is not enough marketable timber to warrant milling operations. In some few places there may be four or five kahikatea and rimu to the acre; but in most places there are not more than two or three; and in many places rimu is absent. It cannot, therefore, be claimed that a reservation of from 10 to 30 or 40 chains on each side of the banks will interfere with milling; for any milling-timber that there may be further back can be got at by roads of access that should be laid off wherever the valleys will permit decent grades.

" *Geology.*—There was little opportunity for geological investigation, but from a cursory examination the lowest stratum that was exposed seemed to be the shale that is commonly known as papa; above this there were strata of sandstone of different hardness, and above the sandstones was a thick stratum of limestone that is said to be pure enough for lime-making. Near the heads were considerable deposits of fluvial alluvium consisting mostly of sands and fine gravels. Mr. Paterson (who has made a study of the district) informed me that calcic phosphate had been found in the district, but that it was not pure enough to warrant working. Between the sandstone and papa there are in many places outcrops of a brown coal, which in one place is now being worked and shipped to Waitara and Wanganui.

" *Birds.*—I must not conclude the nature notes of this sketch without reference to our feathered friends. From the start one is gladdened by the cheerful notes of the tui and the fitful antics of the fantail; and as one gets away from the settlement the beautiful native pigeon may often be seen swooping from tree to tree or lazily warming itself on some exposed branch. Along by the water's edge darts the kingfisher or kotaretare of the Maoris; rounding some bend one comes suddenly on a brace of grey-duck or teal; gazing aloft one sees floating in the sky the kahu, or harrier; now the

ear is charmed by the note of the korimako, or bell-bird ; now it is the pipiwharauroa, or bronze cuckoo ; or the sweet note of the whitehead, or popokatea ; or the chatter of the parrakeet, or kakariki ; or the harsh cry of the kaka ; now the sweet soft warble of the riroriro, or New Zealand wren ; also the black-headed tit frequently flits across the view ; thrushes and blackbirds have, of course, invaded the domains of these indigenous inhabitants."

Suitableness for Settlement.

On the lower reaches for the Mokau the soil appears to be a combination of alluvial papa, sandstone, and limestone, with occasional outcrops of sandstone, limestone, and papa rock. At the mouth there is a mixture of black sand and gravel on the river-beach and sea-coast. On the upper reaches limestone replaces the papa, and the limestone country is reached about thirty-five miles up. The humid nature of the climate, and the comparatively warm temperature that seems to prevail, serves to produce a dense vegetable growth on the rich soil of the banks. From the mouth as far as the coal-mines (twenty-five miles up) there are few rocks in the channel, but above the mines the river contracts, and rocks are frequently encountered, considerable clearing of the channel and snags, with improvement of the numerous rapids, being urgently required. The valley enclosing the river narrows as one nears the source, but retains its wooded aspect throughout until settlement is reached near Kawakawa, and the surrounding country is undulating and broken, and easily accessible from the river, being well fitted for settlement both on account of its soil and also through the comparative even nature of the country.

On the lower reaches there are occasional areas of fairly flat land, which, when cleared and grassed, would no doubt be suitable for small farms, whilst at the back of many ridges fronting the river are larger areas of undulating land suitable for pastoral purposes, and to such lands means of communication from the river should be carefully preserved. This has been borne in mind when framing the accompanying scenic recommendations, and, in all cases where it seemed advisable, land that is better fitted for settlement than scenery-preservation has been excluded. Only that class of land that cannot be utilised except in large areas, at low rentals and at much expense, has been recommended for reservation, and in these cases the rugged nature of the land and the destruction of its natural covering would occasion for more harm to the river and district than can be counterbalanced by the settlement of a few farmers, who could only obtain meagre returns from their holdings, to give road access to which would require heavy expenditure owing to the steepness of the country ; and a certain detriment to the river would be occasioned by the denudation of the adjacent hills, once the bush-covering is felled, and the ultimate deposit of much of the surface soil in the bed of the river. The reservation of scenic areas will greatly add to the profitable utilisation of all surrounding land which may be more fitted for settlement and capable of supporting a sufficient population. The beauty of the Mokau River banks, and their unique scenery, moreover, render the protection of the valley of inestimable value to the State, both for economic and æsthetic reasons, and, as the land is now valued as low as it is ever likely to be, its purchase would be comparatively cheap at the present time, yielding a rich return in the years to come.

The accompanying plan of proposed reservations, and the photographs illustrating the various parts of the river, serve to more graphically indicate the suggestions contained in this report.

*Around Mokau.**

Before commencing a trip up the river the visitor will be well repaid by inspecting the many places of interest near the Heads. Facing the sea-coast, at the back of the township, is the site of the old Topapahiki *Pa* of the Ngati-Rakei, the scene of a massacre by Te Rauparaha in the end of 1821. Along the coast, at the base of the cliffs, are numerous caves, from one of which (Te Ana-pato, or the Shattered Cave—but now known as the Ochre Cave) the Maoris were accustomed to scrape a reddish sediment (kokowai, or red ochre) off the walls, using it for colouring canoes, &c. In another cave may be seen specks of mica, mistaken by the Maoris for gold in the early days of gold-discoveries. About a mile south of the Heads is a mussel-reef, the scene of many a severe fight between the Ngati-Tama and the Ngati-Maniapoto Natives. Growing near the Heads are groves of the historical Tainui trees (*Pomaderris apetala*) which are said to have sprung from the rollers, skids, and flooring of the great canoe "Tainui," which brought some of the ancestors of the present Maori race to Kawhia, whence some of them afterwards settled at Tongaporutu, Mokau, and Awakino. It is only near Mokau and Kawhia that the tree grows in New Zealand, it having been discovered by Sir James Hector in 1878. Half a mile from the Heads, and a little off the fairway, is a curiously shaped sandstone rock to which the "Tainui" canoe is supposed to have been moored when the Maoris first came to Mokau. On the river-bank, at the present Maori settlement of Te Kauri, may be seen an old totara-tree trunk, supposed to have drifted from Kawhia, and to have been deposited by an unusually high tide at this place. It was made *tapu*, or sacred, by the Maoris, and has always been regarded with reverence, evil having been said to have happened to any rash person who interfered with it. On a small hill overlooking the township, originally called Puke-kiwi (or Kiwi Hill) and now known as Maungapakeha (or the Stranger's Hill) the early missionaries erected a church, and in the adjoining churchyard are buried Takerei and many hereditary chiefs of Ngati-Rakei and other branches of the Ngati-Maniapoto, amongst them being also the first Native missionary who came to Taranaki. This was Hamuera (or Samuel), a Maori educated by Bishop Williams at the Bay of Islands, who was sent by the Bishop to Mokau, where he did good work, but through domestic unhappiness finally committed suicide, and was buried here by order of the then chief. At the back of this hill may be seen the ruins of an old mill established before

* Revised by S. Percy Smith, Esq., F.R.G.S., New Plymouth.



EIGHTEEN MILES UP THE MOKAU RIVER.

[W. A. Collis, photo.]



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No. 20. FIRST GLIMPSE OF U

TWENTY-ONE MILES UP THE MOKAU RIVER.

[W. A. Collis, photo.]

the Maori war in 1860, and on the site—Tokomaru—a number of grape-vines now grow. From the top of the low range of hills running parallel with the coast can be obtained a remarkably fine view of the north Taranaki coast-line, even Paritutu being visible on a clear day, whilst Mount Egmont shows its majestic head in lonely grandeur in the far distance.

In the good old days two Maori tribes lived near Mokau Heads. The Ngati-Tama of Poutama dwelt on the south side of the river, with boundaries extending to a couple of miles south of the White Cliffs, and the Ngati-Maniapoto and their minor branches on the north side, and, as may easily be imagined, tribal fights were frequent, and often on apparently inadequate grounds. On one occasion (supposed to be about seventy-five years ago) some of the Ngati-Maniapoto were fishing at the Heads in a small canoe, and caught a large schnapper. Coming back with their catch, just inside the bar, they saw some of the Ngati-Tama watching them, and in defiance held up, for them to see, the large fish they had just caught. This was at a point now called Ture (the Place of the Law). The Ngati-Tama immediately claimed possession of the fish, as it was caught within their tribal waters; but the Ngati-Maniapoto resumed their paddling up the river for about half a mile, when they rested at a place now called Te To, where the Ngati-Tama once more claimed possession of the schnapper. This was again refused, and the Ngati-Tama, continuing their paddling, reached a third place, half a mile further on, where they landed, and hung up their catch of fish to dry and be cured. This place is called Te Rainga. This and other incidents led to the siege of the Ngati-Maniapoto on a small island situated in the river about a mile and a half from the mouth, known as Motu-tawa, an account of which is given from the "Journal of the Polynesian Society," Vol. xvii as follows. The following account was written previously by Mr. S. Percy Smith, and supplies a most interesting history of the principal occurrences in the district:—

After the great expedition of Ngati-Haua and other tribes, which came to Pou-tama to seek revenge for the death of Tai-porutu had been hurled back by the bravery of Ngati-Tama, there was apparently a transient peace or truce between the latter tribe and their northern neighbours at Mokau for some ten or twelve years. At any rate, no incident has come to our knowledge marking that period, though, no doubt, the enmity in which these tribes had lived for so many generations would not allow of any available chance of striking a blow to be passed over. But there were no great expeditions, and both sides would, no doubt, be glad of a few years' rest in order that the boys should grow to maturity and be trained as warriors.

But about the year 1812 (so far as can be ascertained) hostilities set in again through an act of brutality on the part of Ngati-Tama whilst on a visit to Motu-tawa. Motu-tawa is a pretty little island situated in a deep bay in the Mokau River, about three-quarters of a mile within the Heads on the northern shore, now covered with bushes and small trees. It is about half an acre in extent, with cliffs nearly all round, rising up from the waters to about fifty or sixty feet, but not equally steep on all sides. At low water the bay is dry, but as the tide rises it surrounds the island to a depth of perhaps four to six feet of water. On the flat top of this island in former days was built a strong palisaded and embanked *pa*, the refuge and stronghold of the Mokau people. On one side is a convenient spring of fresh water.

Ngati-Tama were apparently on such terms with the Mokau people about this time that they were admitted into the *pa* and were hospitably feasted, but at the same time my informant (old Rihari, of Mokau) says that they were on a *tana*. What the exact circumstances were are not of much consequence. But during the feast two boys of the *pa*, named Pitonga and Nga-whakarewa-kauri, helped themselves to the food provided and set apart for Ngati-Tama. They were reprovved for this, but again repeated the offence. This roused the wrath of Ngati-Tama, who—probably seeking a *take*, or cause, against the *pa*, and seeing here their chance—knocked the unfortunate boys on the head. There was an immediate rush to arms, and a desperate fight commenced between the two parties. But it was not of long duration: Ngati-Tama drove their hosts pell-mell out of the *pa*, and took possession of it. The parents of the boys, together with the whole of Ngati-Rakei of those parts, fled with the utmost expedition to the forest which even to this day lines the shores of the little bay in which Motu-tawa is situated, and gradually made their way through the country to Otorohanga in the Waipa Valley—now a station on the Main Trunk Railway—to join some of their relatives there. Here the people settled down for some three years, not daring to return to their own country at Mokau, which was in occasional occupation of Ngati-Tama and some of the Ati-Awa tribes.

The exiles dwelt amongst their friends at Otorohanga, as has been said, for about three years, cultivating on the lands of others as *manene*, or strangers, and feeling generally uncomfortable through this fact. When the strong westerly winds used to blow from the coast the old people would listen to the far-distant sound of the breakers dashing on the shore—which they could hear from the ranges not far from Otorohanga—and sniff the salt-laden breezes of their old home. Then the people would greet and lament over the misfortunes which had taken them so far from their beloved homes. This feeling became so strong at last that the chiefs consulted together, and determined to attempt the reconquest of their lands and homes.

Te Wharau-roa, who at that time was the leader of Ngati-Rakei, Ngati-Hia, and other Mokau *hapus*, raised a war party from those tribes, and started from Otorohanga on their long and risky journey. They came up the Mangapapa Valley and by Te Ana-uriuri on the Waipa-Mokau water-parting, and thence to the head of the Mokau, and down that river by canoes to Te Mahoe, a bend in the river some two miles from the mouth. Here the party went into camp, carefully concealing all signs of smoke, &c., whilst spies were sent out to see where the Ngati-Tama were. They returned, and reported that the enemy was all over the country at the mouth of the river, and along the coast southward, but that the principal number were gathered at a village they had built about half-way between Mokau and Mokaka-tino. A council was then held to consider how the war-party might reach this village without being seen, and finally a plan was adopted. Starting at dawn one morning, they crossed the river, and concealed their canoes in the little creeks just opposite Te Mahoe, and from there climbed the steep forest range which leads up to the high hill named Tawariki, on which there is now a trig. station. From here they followed the ridges that run parallel to the coast until they came out at the Mohaka-tino River, about a mile from its mouth. The party was now between Ngati-Tama and any succour they might receive from their own people to the south. Arrived at the sea-beach, Wharau-roa instructed all his party to trail their spears and other arms along the sands, with one end fastened to their ankles by a flat string. The party now advanced along the beach in careless order, some shouting, some singing, some skidding flat stones along the wet sands, all of which was done to make Ngati-Tama think it was a party of their friends from the south coming to visit them.

The war-party was 140 *topu* (i.e., 280) strong, whilst the Ngati-Tama and Ati-Awa were said to be more numerous. As they drew near the village many of the women, children, and some of the men came down to the beach to meet the visitors. When Wharau-roa saw the time was come he gave the signal, and in an instant the spears were seized and a charge made into the unsuspecting Ngati-Tama, all of whom were killed. The rest of Ngati-Tama in the village, seeing what was going on, armed and rushed down the beach to meet the foe. Here, on the beach, these ancient enemies fought it out, it is said, during two flood tides—hence the name of the battle, Nga-tai-pari-rua (the Twice-flowing Tide). No doubt there is some truth in the story, or the name would not have been given. The end of the fight saw Ngati-Rakei and their allies victorious for once over Ngati-Tama, who, after losing a large number of men, were obliged to retreat. They fell back on their impregnable stronghold, Te Kawan, where they were safe. The Mokau people went on and occupied their old homes on the river, greatly to their delight, says my informant, and he adds, "The Mokau people have to thank my grandfather Te Wharau-roa for saving their country for them."

This siege of Motu-tawa referred to above is not the only one that has occurred: after the defeat of the great Waikato army at Nga-motu (Otaka, near the Sugarloaves) in which, however, the Ati-Awa and allied tribes suffered considerably, these tribes, to square accounts with Waikato and Ngati-Maniapoto, sent a strong *tau*a against the Mokau people, who retired to their island-fortress of Motu-tawa, where they were besieged. Owing to a split in the council of the invaders, the siege was finally abandoned after a good deal of fighting had taken place, in which both sides suffered. This was early in 1832, and shortly after the return of the Ati-Awa forces the bulk of them migrated to Port Nicholson.

The following account of Motu-tawa, by Mr. James Cowan, conveys a good idea of the beauty of the island:

"Motu-tawa covers about two or three acres, and is thickly clothed with beautiful native vegetation. For most of its circumference it is protected by bold banks, which formed part of its defences in the old Maori fighting-days, when the island was a strong *pa* of the Ngati-Maniapoto Tribe. On the northern side its slopes are covered with fine groves of karaka, mangleo, and rewarewa, with ponga tree-ferns. There are high parapets on this side overgrown with flax, koromiko, &c., and the flat top of the island is thick with old food-pits and remains of whares. On the beach the stumps of the ancient totara palisade-posts are still to be seen. On the side facing Mokau Township, there is a pretty little rock grotto overhung with ferns, sheltering a never-failing spring of fresh water, known to the Maoris as Te Ara-paopao. It was this spring that generations ago enabled the Ngati-Maniapoto people, when besieged there, to hold out for many months against their enemies from Taranaki, when otherwise they would have been forced to surrender through thirst. It was an almost impregnable stronghold in the days of intertribal warfare. At the present time it is regarded as semi-sacred by the Maoris, being a former burial-place of the Natives."

Up the River.

Starting up the river to view the scenery, the first place of interest is Mahoe, on the right bank (from the source), where the Wesleyan missionaries founded a school in which the Maori children were taught to read and write, and to make mats, ropes, baskets, and other useful articles. A cherry-grove now marks the site of the old school.

A little more than three miles from the mouth is the Rangiohua cliff, overlooking the river, at the end of a short ridge. The first *pa* of the district was said to have been erected here by the original occupants of the country as a protection against the invading Maoris from Hawaiki. As so often occurs in the traditions relating to the dim past, the marvellous enters into the account of the manner in which this *tangata-uhenua* (or original people) escaped from Rangiohua. Being hard pressed by the more forceful people of Hawaiki, and seeing that the *Pa* Rangiohua was bound to fall in the end, the inhabitants escaped by an underground passage, and came out at a very great distance from their homes—indeed, some say on the east coast. Probably there is some foundation for the story, and the people might well have got away by a passage only known to themselves, and this feat in time has become mixed up with the subsequent wanderings of the defeated people. The promontory on the opposite bank contains some very pretty bush, and as the river winds round it the visitor will get a very good idea of the scenery he may expect during the trip.

The river here winds in the shape of the letter S, and a corresponding promontory on the other bank is immediately met with. Low ridges of hills confine the valley, and from the tops down to the water's edge a thick vegetation terminating in native sedge meets the sight. Five miles up an outcrop of limestone on the left bank is seen, and, though it has not yet been worked to advantage, it will probably be much availed of in the future, when settlement increases in the district.

A little above the limestone-outcrop, on the small plateau at the top of the range overlooking the river, is situated an ancient burial-ground of the Maoris. Reaching the 6-miles distance from the mouth, it will be noticed that the river by this time has considerably narrowed—from a width of over half a mile to about 200 ft. Turning round another small bend, the Moango clearing is seen on the right bank, and, although a distance of only about half a mile by crossing the peninsula here separates the river from its channel further up stream, it takes four miles by water to arrive at the same point. This old clearing, with four miles of water frontage, is said to have been worked for timber during the Maori war, and is now well suited for farming purposes. Coming round the Moango bend, the Tawariki clearing is seen on the further side, and immediately beyond is Greenaway's old sawmill and clearing. Corresponding to the Moango bend is a smaller one named Kaputaruke, three miles in length. On the left bank, and forming the outer ridge of the semicircle, on the opposite side, is a fine range of hills covered with red-beech, terminating in Puke-hero ("the red hill"). From the 5th mile up to the Manga-awakino Valley, 17 miles up, runs one continuous belt of native forest, covering the right bank in beautiful vegetation, and forming a magnificent sight to visitors. With the exception of a few possible road-routes to the back country, the whole of this land should be reserved, as it is admirably fitted for scenic reservation, but is not very well adapted for farming or milling purposes. At the 13th mile, on the left bank, is a fine sandstone bluff about 50 ft. high, and on the opposite bank is the site of the old Taurangatoitoi *Pa*, traces of the extensive cultivations which used to surround it being still visible. On the high hills at the back of the sandstone bluff are some old burial-places of the Natives. Fifteen miles up, Rothery's old sawmill is reached, at the mouth of the Totara Stream, the land surrounding it being flat or undulating, and fairly well fitted for settlement; and a mile and a half further on is Kelly's sawmill. Bordering the river at the 17th mile is the Torea Range, and running past one side of it is the Manga-awakino Valley and the Torea clearing, in which is placed Dive's new sawmill. The timber up the valley is much superior to that seen on the banks, and, as the country opens out slightly, access to the back land is practicable. Soon after passing the mill the boundary of the Mokau Coal-mines Company's leasehold is reached, and, though some of the land fronting the river is fairly flat, the hills at the back are only suitable for reservation. At the 19th mile some rocks fallen into the

stream from the adjacent bank are noticeable, and are the favourite resting-places for numbers of sea-gulls and other birds, the rocks being called by the Maoris "*Kowhatu-tutae*." The country bordering the river is now more rugged in character than heretofore, and the scenery improves in consequence, owing to the forest being shown to better advantage. At the 21st mile, the Manga-tawa rapids are met with, although it is only at low water that they present much difficulty. On the left bank a kiln has been erected to work the lime-deposits in the vicinity. Between the 22nd and 23rd miles is the beautiful Mangatawa Reach, and the river then turns sharply round to the left, rendering navigation somewhat awkward for steamers. Owing to this cause, the s.s. "*Tainui*" struck a sunken ledge of rock in 1907 and broke off her propeller, an involuntary stoppage and mooring at the place for three weeks being thereby necessitated. Among the hills, which here attain to a height of 200 ft. on the left bank, is the site of an old *pa*, admirably adapted for defence and outlook. At the 24th mile is to be seen the trunk of a red-beech tree which has fallen from the cliff into the river, and now remains firmly resting in the river's bed, but with its base still attached to the cliff. This tree is locally known as the Black Rock, and two fern-covered rocks close by are called by the Maoris "*Nga-tamariki-o-Tumaru* (the sons of Tumaru), the legend being that many years ago an exploring party from the Ngati-Maniapoto Tribe, headed by a chief called Tumaru, whilst paddling down the river found two newly born twin boys lying exposed on a rock, and as no other persons could be found in the vicinity, Tumaru took the boys and adopted them. At the 25th mile may be seen an old landslip from the right bank, which by the action of the current is now formed into an island; and, half a mile beyond, the well-known coal-mines appear, they being only fifty yards from the stream, at the base of the slopes of a low ridge of hills, the cliff-faces of which show white amid the bush and scrub.

The Mangapapa Mine, as the workings at this place are called, is one of the safest and most easily worked mines in the world. Naked lights have always been in use throughout the mine, and no accident has occurred throughout the twenty-five years the mine has been in existence. The seam of coal tapped by the mine is about 8 ft. thick, separated in the middle by impure beds of fireclay, and the drive has an easy gradient of about 1 in 10, which enables the coal to be run out by gravitation, whilst the sandstone roof dispenses with much of the timbering usually required. The coal is described as consisting of two qualities, the upper seam being superior lignite and the lower bright bituminous coal of superior quality, both igniting easily, giving off little gas, burning with a bright flame, and leaving a very small amount of white pulverulent ash, whilst the quantity is considered practically inexhaustible. These particulars are gathered from the Mining Handbook of 1906.

Soon after leaving the Mangapapa Mine, the Manga-kawhia Creek discharges itself into the river on the right bank. Although the stream looks small from the river, yet its channel and valley is of much greater size farther back, and it drains a large extent of country. Nearly opposite the creek is a rapid, and at the end of a short straight is the Manga-toi Stream (on the right bank) at the foot of a short range of hills, which force the river to wind westward to circumvent them. The hills are about 500 ft. high from the water's edge, and the surrounding country is too steep for settlement. Turning the sharp bend, another range of hills about 700 ft. high is seen on the opposite bank, and a fine reach of over half a mile leads to the Manga-pohue Stream, on the left bank. The river here turns to the east, and on the right bank, at the 28th mile, a pretty little waterfall about 30 ft. high is seen, the first one on the river's bank since leaving Mokau Township. Half a mile further on is a second waterfall about 40 ft. high, on the same side of the river. The scenery here is very fine, continuous ridges of hills running down from the back ranges to the river's edge, and between them many little streams with fern- and bush-clothed banks are seen disappearing into the belt of forest which covers all this country.

Between the 29th and 30th miles is a fine cascade on the right bank, about 90 ft. high, the cliffs on either side rising to about 200 ft. Beyond the 30th mile the direction of the river changes to north-east, and a long series of rapids and rocky gorges renders the stream difficult for navigation except in canoes, whilst a considerable amount of snagging is required to improve the channel. The famous Panirau rapid is reached at the 31st mile, and the visitor may here pause to view the surrounding scenery with close attention.

Undoubtedly this is one of the most attractive portions of the Mokau River, as its charms are shown off to full advantage by the character of the country and the innumerable diversity in the general colour-scheme, the changing lights and shadows among the vivid forest-growth, the bewildering tints of green to be descried in the wealth of ferns, nikau, young plants, older forest giants, and the frequent carpet of native sedge; the varied hues of the winding river, ranging from the dazzling foam of the successive rapids to the dark translucency of the placid reaches, which reflect on their shining mirror the fern-clad banks and wooded ridges, whilst above all a summer sky of purest azure, only broken by the occasional passages of fleecy white clouds, makes the sight of the Mokau on a fine day an experience never to be surpassed. One appears to be in the midst of unspoilt nature and limitless verdure. As far as the sight can reach, an evergreen forest stretches in an unbroken covering over the undulating hills and steeper ranges, and down the valley of this fascinating region flows a river rich in legendary lore, and serving as a gateway to a scenic paradise.

The following description by Mr. James Cowan, Department of Tourist and Health Resorts, gives a very good idea of the scenery further up the river :—

The Mokau River above Panirau Rapids.

"Panirau, on the Upper Mokau, is an uncommonly beautiful spot. Here the river, after sweeping round in a sharp bend just where the Panirau Stream joins it (left bank), roars down in a long rapid, or series of rapids, which form the most serious obstacle to navigation on the whole course of the river. 'Pani-rau' means 'many orphans': it is an allusion to the dangerous character of this part of the

river, and to the frequent canoe-capsizes and drowning accidents here in former times, when the Mokau was a much-used channel of Maori canoe traffic. At the head of the rapids is a small island, which is a convenient camping-ground for canoe-crews, unless the river is very high. The Panirau Creek enters the Mokau close to the island, flowing in through a narrow gorge between two lofty tree-shadowed banks. This stream in ancient days was the route taken by war-parties bound for the Ohura Valley and the upper Wanganui. The cliff and mountain scenery here is very wild and bold. On either side of the rapid-whitened Mokau the great ranges rise steeply for about a thousand feet, clothed with forest to the sky-line; and just above the rapids, in the bend, the river flows through a narrow gorge where every sign of rock and soil is hidden by densely growing timber, ancient trees covered with moss and kiekie, and every crevice is filled with beautiful ferns.

"Just above the great bend there is a splendid smooth reach, with the Ranga-a-Waitara forested range rising precipitously, a razor-backed wall, on the right-hand side. Then more rapids are breasted, the Otukihi, where the obstructions are rocks, not snags, and where the water curls in glassy curves and waves over slippery rounded boulders. These rapids bore a reputation of dread amongst the Maoris. Two of the children of the King-country chief Tawhana were drowned here by the capsize of a canoe. In this part the river is strewn with mossy boulders; on these rocks piharau, or lampreys, are often found after floods.

"About half a mile beyond Otukihi are the Mahuenui rapids, where the river pours down over rough boulders—a dangerous spot for canoes. Poling up this swift run, we soon come to another rapid, the Turanga-a-Pou, which was evidently caused by a heavy slip from the banks. A good deal of snagging is required here. The ranges on either side of the Mokau now lessen in height, but the river retains its gorgy character. Between the several rapids there are long, still, calm reaches, overhung by forest trees of large size, hung with creepers and mosses. Two more rapids, the Mahue-iti and Mangatakiora, are within half a mile of each other: both are swift glassy runs over rocky obstructions and sunken logs. The little Mangatakiora Stream comes in here on our left. Presently there are signs of civilisation again, a welcome break after the great solitudes of the forest. At the Matai bend we come upon a pioneer settler's home, Riddell's clearing, a very lovely spot. There is now a succession of rapids to be overcome—the Matai, the long run of the Tahu-mataroa, the boulder-strewn Aroarohaki, and the Mangaharakeke (Flax Creek), named after a small stream which here joins the river. The banks here are low and well wooded; tawa and miro are the predominating timber. Shrubs and fern bend over the banks beneath the large trees, and the reflections in the still clear reaches are marvellously beautiful. Bird-life is plentiful; wild pigeons and tui are frequently seen feeding on the miro and kowhai trees along the banks.

"At Whakapapa and Kawakawa, about forty miles from the sea, the forest gives place to manuka and high fern and shrubby vegetation; the soil here is evidently very rich, and should make the best of farming land. Several small rapids are encountered; Te Poko and Iwitu are the principal. Here we had to get out and haul our canoe up over the shallows. The runs are not swift, but in summer-time the depth of water is so small that launches would have considerable difficulty unless the methods of navigation adopted on the Wanganui are introduced here.

"At Kaiwaka, a short distance below Totoro, there are to be seen the remains of a very large *pa-tuna*, or eel-weir, built of stout manuka stakes driven into the river-bed. This *pa* was constructed about five years ago by Te Rangituataka, the highest chief of the Ngati-Maniapoto Tribe, and brother to the late celebrated Wetere to Rerenga, of Mokau Heads. Rangi had this *pa* erected in the expectation of making a big haul of the silvery eels which abound here in March and April for a great tribal feast; but a flood swept half of the weir away, and the old chief interpreted this as a *tohu-aitua* or omen of death or misfortune to himself, and not long afterwards he died at his home at Mahoenui.

"The European settlement at Mahoenui, on the Awakino—Te Kuiti Road, is about two miles from the canoe-landing at Kaiwaka, and no doubt this landing will be found a more convenient terminus for the river traffic than Totoro, a mile or so higher up the Mokau."

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NEAR THE MANGAPAPA COAL-MINE, MOKAU RIVER.

[W. A. Collis, photo.]



6269
A RIVER REACH ON THE MOKAU. No. 9

TWENTY-SIX MILES UP THE MOKAU RIVER.

[W. A. Collis, photo.]



3278
No. 23. ON THE MOKAU RIVER.

TWENTY-NINE MILES UP THE MOKAU RIVER.

[W. A. Collis, photo

Showing positions of Plans
Nos. 1 to 4

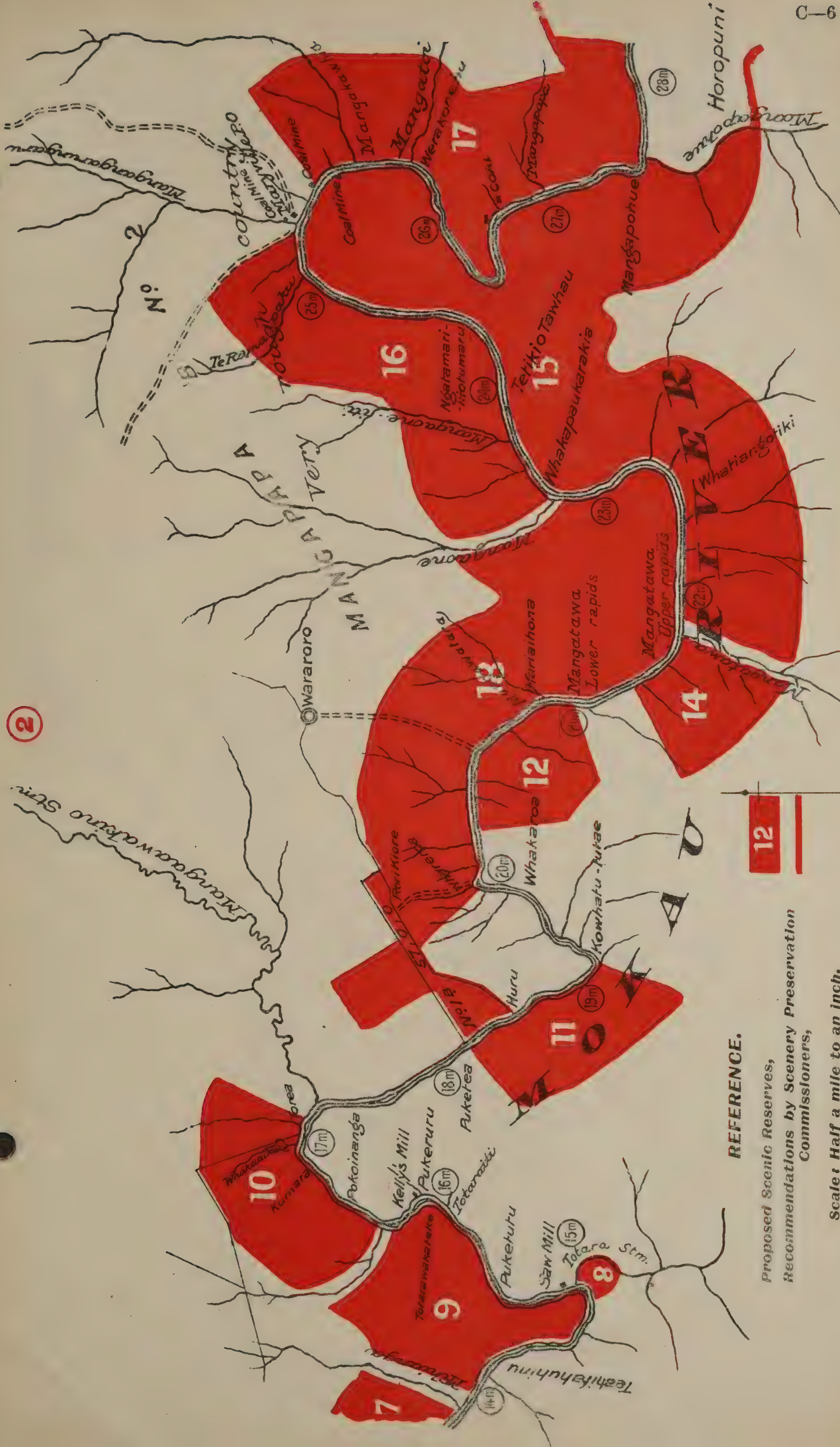
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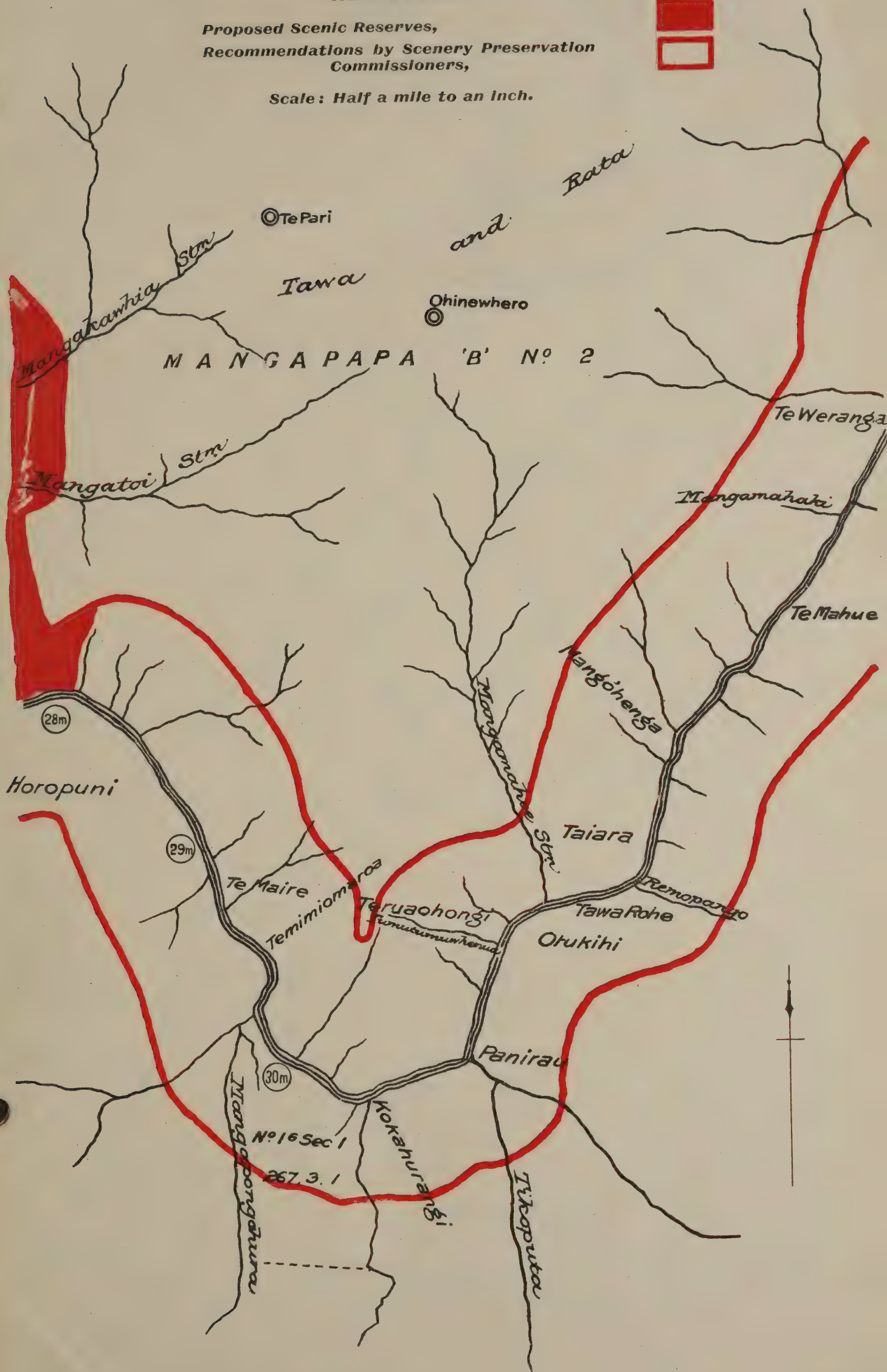
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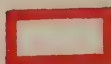


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“THE LOCAL BODIES’ LOANS ACT, 1908”

(DETAILS RELATIVE TO BLOCKS OF LAND PROCLAIMED UNDER).

Prepared and laid before both Houses of Parliament in accordance with Section 77 of “The Local Bodies’ Loans Act, 1908.”

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," and the Report of the Surveyor-General on the Value of such Blocks, and on the Necessary Works, and the Estimated Cost of the Works, and on the Moneys expended in respect of such Blocks out of Moneys borrowed under the said Act.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.
AUCKLAND LAND DISTRICT.										
	Acres.				£		£	£	£ s. d.	£ s. d.
Ahuroa	5,049	23	479	18 Mar., 1892	2,184	Road-works	500	497	..	497 2 5
Akaaka Swamp	2,935	72	1273	15 Sept., 1892	2,093	Drainage ..	920	917	..	916 12 1
Auckland Special Settlement	8,995	78	1665	24 Oct., 1895	3,698	Road-works	899	898	..	898 0 1
Avoca	3,668	24	482	29 Mar., 1894	1,834	"	458	458	..	458 0 0
Awakino	1,210	97	2995	22 Nov., 1906	985	"	482	301	165 13 4	466 4 2
Awaroa No. 2	3,767	20	495	24 Mar., 1898	2,185	"	400	400	..	400 0 0
Hauturu	63,186	1	1	5 Jan., 1899	29,585	"	10,469	10,278	..	10,278 1 8
		31	750	28 Mar., 1901		"				
Huehue	4,134	59	1620	23 July, 1903	2,911	"	827	827	..	827 0 0
Kaikokopu	7,397	16	435	23 Feb., 1899	2,774	"	739	739	..	738 18 2
Kaimango	600	19	837	12 Mar., 1908	600	"	210	..	7 8 5	7 8 5
Kaimarama	3,179	71	1372	21 Sept., 1893	1,431	"	447	318	129 0 0	447 0 0
Kakepuku	2,732	33	1,099	21 April, 1904	3,074	Roads and drains	683	..	649 2 1	649 2 1
Karioi-Alexandra	12,912	10	269 270	13 Feb., 1896	4,837	Road-works	1,662	1,662	..	1,661 14 6
Karioi Parish	550	20	495	24 Mar., 1898	206	"	55	55	..	55 0 0
Kauaeranga	3,556	91	2021	20 Dec., 1898	1,770	"	445	445	..	444 18 3
Kawaka	3,420	34	1152	28 April, 1904	1,332	"	584	684	..	683 17 3
Kawhia	4,927	70	1498	22 Sept., 1898	2,819	"	616	616	..	615 18 1
Kenana	773	50	1755	22 June, 1906	425	"	155	110	7 5 2	117 6 2
Ketetangariki	1,070	16	529	23 Feb., 1905	663	"	263	268	..	268 0 0
Kinohaku West	60,311	100	2198	1 Dec., 1899	51,306	"	14,990	13,877	1,112 18 4	14,990 0 0
Kinohaku West No. 2	23,004	72	1572	1 Aug., 1901	7,589	"	5,753	5,676	77 1 8	5,753 2 6
Kiokio	4,349	66	1726	21 Aug., 1902	3,812	"	545	545	..	545 0 0
Kohumaru	3,993	83	1846	17 Nov., 1898	3,299	"	1,430	200	387 8 6	587 5 7
Kopua	4,263	73	2109	1 Sept., 1904	2,264	"	894	894	..	894 0 0
Kowauunui	3,464	63	2034	26 July, 1906	1,595	"	520	516	4 0 0	519 18 1
Mahoenui	6,471	73	1602	8 Aug., 1901	5,366	"	990	990	..	989 19 5
Maioiro Swamp	722	80	1365	13 Oct., 1892	476	Drainage ..	225	225	..	225 0 0
Maire	2,659	81	2343	6 Oct., 1904	931	Road-works	399	397	..	397 6 0
Mamaku	7,684	24	564	7 April, 1898	3,842	"	700	700	..	700 0 0
Manawahe	43,248	83	2221	14 Sept., 1905	25,909	"	6,190	3,014	897 7 0	3,911 12 7
Mangakahia	10,190	20	495	24 Mar., 1898	4,548	"	2,000	1,470	281 15 3	1,751 9 4
Mangakahia No. 2	1,109	91	2032	2 Nov., 1899	671	"	111	111	..	111 0 0
Mangamahoe	344	56	1447	15 June, 1905	356	"	112	..	..	..
Manganuiowae	4,599	23 77	479 2113	18 Mar., 1892 1 Oct., 1903	1,745	"	500	500	..	500 0 0
Mangaokahu	3,525	54 22	1047 629	6 July, 1893 13 Mar., 1902	1,743	"	424	232	..	232 0 0
Mangapu	1,203	11	558	13 Feb., 1908	1,733	"	601	..	601 0 0	601 0 0
Mangawhara	9,669	73	2109	1 Sept., 1904	6,073	"	2,416	2,264	151 18 11	2,415 19 5
Mangorewa-Kaharoa	23,987	91	2032	2 Nov., 1899	9,997	"	3,552	2,800	..	2,800 0 0
Mareikura No. 1	950	77	1716	27 Oct., 1898	493	"	120	120	..	120 0 0
Mareikura No. 2	584	79	1773	3 Nov., 1898	292	"	70	70	..	70 0 0
Mareretu	5,060	23	479	18 Mar., 1892	1,976	"	395	395	..	395 0 0
Marlborough	4,670	46	939	21 June, 1894	2,043	"	467	467	..	467 0 0
Maropiu	5,343	24	667	11 Mar., 1897	2,712	"	656	653	..	653 9 10
Maukoro	9,978	54	1517	2 July, 1903	5,729	"	1,496	1,496	..	1,495 19 7
Maungaru	4,368	20	494	24 Mar., 1898	2,184	"	460	460	..	460 0 0
Maungataniwha	4,000	23	479	18 Mar., 1892	1,500	"	500	499	..	499 1 6
Maungataniwha No. 2	1,220	47	955	18 June, 1896	487	"	120	120	..	119 19 9
Maungataniwha No. 3	470	84	2270	21 Sept., 1905	235	"	94	93	..	93 7 2
Moeatua	2,930	68	1959	18 Aug., 1904	2,322	"	733	707	25 14 10	733 0 0
Motatau	5,803	23 24	479 885	18 Mar., 1892 2 April, 1903	2,349	"	600	599	..	598 10 7
Ngarua	3,461	97	2879	8 Dec., 1904	2,153	"	849	849	..	848 19 11
Ngunguru	6,216	46 16	973 529	20 June, 1895 23 Feb., 1905	3,417	"	772	772	..	772 0 0
Ngutunui	1,657	54	1518	2 July, 1903	1,053	"	210	99	110 15 4	210 0 0
Oamaru No. 1	15,027	17	648	1 Mar., 1906	9,821	"	3,734	2,509	1,210 11 7	3,719 3 6
Oamaru No. 2	3,243	49	1735	6 June, 1907	2,587	"	1,293	91	837 4 6	927 19 3
Oamaru No. 3	17,000	70	2,402	10 Sept., 1908	12,750	"	4,250	..	6 17 5	6 17 5
Okohiriki	13,277	91	2021	20 Dec., 1898	5,094	"	1,550	1,547	..	1,547 8 1
Okohiriki No. 1E	2,626	70	1858	4 Sept., 1902	1,050	"	260	259	..	259 2 3
Omanawa	3,380	90	2694	10 Nov., 1904	2,047	"	845	844	..	844 0 0
Omawhake	5,094	75	2154	8 Sept., 1904	2,135	"	637	..	..	..
Opanake	2,508	24	563	7 April, 1898	1,254	"	100	99	..	99 1 0
Opouteke	12,240	1 25	29 923	8 Jan., 1903 5 April, 1906	7,991	"	3,248	298	1,190 4 4	1,488 12 0
Opuatea No. 1	5,720	9	254	2 Feb., 1899	2,288	"	858	858	..	858 0 0
Opuatea No. 2	8,030	83	1847	17 Nov., 1898	2,735	"	1,000	1,000	..	1,000 0 0
Opuatea No. 3	4,337	83	1846	17 Nov., 1898	1,976	"	600	600	..	600 0 0
Opuawhanga No. 1	4,815	23 77	412 2114	30 Mar., 1893 1 Oct., 1903	1,917	"	500	500	..	500 0 0
Opuawhanga-Whangarei No. 1	5,140	34 16	571 528	1 May, 1893 23 Feb., 1905	2,300	"	500	500	..	500 0 0
Otaenga	1,630	81	2343	6 Oct., 1904	1,019	"	326	..	..	..
Otanake Special Settlement	7,253	62	1727	6 Aug., 1903	5,440	"	1,813	1,161	244 3 9	1,405 2 10
Otau	18,510	71	1255	8 Sept., 1892	6,941	"	2,350	2,350	..	2,350 0 0
Otepo	463	16	528	23 Feb., 1905	232	"	115	..	..	..
Carried forward	535,857	..	..	..	297,183	..	94,792	73,899	8,097 10 5	81,996 11 6

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c.
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.
AUCKLAND LAND DISTRICT—continued.										
	Acres.				£		£	£	£ s. d.	£ s. d.
Brought forward	535,857	..	..	..	297,183	..	94,792	73,899	8,097 10 5	81,996 11 6
Oue	6,248	78	2609	15 Oct., 1908	3,820	Road-works	1,685	..	..	..
Otukai	8,946	83	1845	17 Nov., 1898	5,014	"	1,059	696	300 1 11	996 5 10
Oumauku	9,770	77	2114	1 Oct., 1903	2,931	"	1,465	1,463	..	1,463 6 0
Ouruwhero	2,615	49	1433	25 June, 1903	2,347	"	680	680	..	679 15 7
Owai	3,378	73	1602	8 Aug., 1901	1,008	"	340	340	..	340 0 0
Paekotare	752	20	494	24 Mar., 1898	296	"	80	76	..	75 14 6
Pakanae	992	73	1601	8 Aug., 1901	291	"	124	112	11 12 5	123 19 2
Pakeho	9,613	91	2032	2 Nov., 1899	5,720	"	1,800	1,800	..	1,799 18 9
Pakiri	4,125	85	2335	5 Nov., 1903	1,607	"	369	369	..	369 0 0
Papakauri	2,025	81	2658	22 Oct., 1908	2,119	Roads and bridges	506	..	..	..
Papamoa No. 2	1,443	7	273	1 Feb., 1906	719	Road-works	180	177	..	177 5 1
Parabaki	1,933	73	1601	8 Aug., 1901	568	"	193	11	..	10 15 0
Pareokawa	7,645	96	2148	7 Nov., 1901	3,557	"	950	944	1 15 0	946 3 7
Pirongia West	16,960	14	361	15 Feb., 1900	10,874	"	2,121	2,118	..	2,118 0 9
Pukemiro	1,111	68	1959	18 Aug., 1904	450	"	167	..	..	..
Pukenui	1,600	77	2113	1 Oct., 1903	1,200	"	240	240	..	239 19 4
Puketarata	5,347	1	1	4 Jan., 1900	2,177	"	535	533	..	532 11 7
Puketarata No. 2	3,027	104	2261	14 Dec., 1899	1,487	"	378	378	..	377 19 4
Puketarata No. 3	2,370	65	1702	14 Aug., 1902	2,371	"	296	296	..	295 19 4
Puketiti	603	17	680	1 Mar., 1906	737	"	151	..	151 0 0	151 0 0
Puriri	1,856	91	2022	20 Dec., 1898	791	"	186	185	..	185 6 0
Raetea	686	5	152	21 Jan., 1904	349	"	137	6	130 10 2	136 5 1
Rotokakahi	4,022	99	2638	16 Nov., 1905	3,571	"	1,207	517	129 15 5	646 11 2
Roto Ngaro	14,841	112	2949	21 Dec., 1905	4,655	"	2,225	198	181 14 9	379 5 1
Ruaoterei	570	78	2609	15 Oct., 1908	428	"	142	..	8 7 6	8 7 6
Ruapekapeka	10,355	77	1345	6 Oct., 1892	3,982	"	500	495	..	494 13 4
Taeore	340	55	1428	8 June, 1905	136	"	68	..	..	..
Tahora No. 2 North	18378 of 62,699	24	522	28 Feb., 1901	15,052	"	5,190	517	1,943 16 7	2,460 16 10
Takahue	1,993	23	479	18 Mar., 1892	946	"	300	300	..	300 0 0
Takahue and Whangape	12,200	89	1864	5 Dec., 1895	4,270	"	1,800	1,800	..	1,800 0 0
Tangihua	4,660	104	2261	14 Dec., 1899	2,106	"	466	466	..	466 0 0
Tauhoa	4,069	15	336	18 Feb., 1892	1,675	"	449	449	..	449 0 0
Tauhoa-Komokoriki	2,585	35	573	4 May, 1893	949	"	325	325	..	325 0 0
Taumata	3,423	20	495	24 Mar., 1898	2,188	"	428	428	..	428 0 0
Taumata-Whakauma	3,269	62	1727	6 Aug., 1903	2,100	"	817	815	..	815 6 2
Taupiri	7,442	45	860	8 June, 1893	3,755	"	920	920	..	919 18 10
Te Akau	13,436	45	1626	11 June, 1908	25,696	Roads and bridges	6,382	..	1,615 13 4	1,615 13 4
Te Kauri	3,570	14	544	18 Feb., 1904	2,616	Ditto ..	916	916	..	916 0 0
Te Kuiti	3,506	70	1498	25 July, 1901	2,927	Road-works	777	776	..	776 7 0
Te Pahu	3,228	3	80	18 Jan., 1906	1,711	"	491	481	9 3 8	489 18 0
Te Puihi	4,505	73	2109	1 Sept., 1904	4,352	"	1,689	1,464	221 19 6	1,686 2 8
Te Puroa	8,042	83	1846	17 Nov., 1898	3,033	"	1,076	1,000	..	1,000 0 0
Te Rerenga	7,991	97	2880	8 Dec., 1904	4,730	"	1,599	1,599	..	1,598 13 9
Tokatoka	11,653	38	911	26 May, 1898	20,712	Drains and roads	..	..	..	..
Tokatoka	4,090 of 11,653	38	911	26 May, 1898	10,226	Tramway and road-works	10,765	10,273	302 17 6	10,575 16 2
Tokatoka	125 of 11,653	38	911	26 May, 1898	1,250	Roads and drains	..	..	..	..
Tokatoka No. 2	1,733	73	1601	8 Aug., 1901	3,934	Road-works	1,474	1,474	..	1,473 19 4
Tokatoka No. 3	448	14	544	18 Feb., 1904	896	Roads and drains	448	448	..	448 0 0
Tumu-Kaituna	3,187	12	495	19 Feb., 1903	2,550	Drainage-works and bridges over drains	1,275	1,274	..	1,274 7 7
Turoto	1,783	97	2879	8 Dec., 1904	1,689	Road-works	539	206	332 11 6	539 10 0
Umurua	4,866	24	564	7 April, 1898	2,433	"	480	479	..	478 14 11
Waiawa	16,870	5	94	27 Jan., 1896	8,439	"	3,268	2,500	343 5 5	2,843 4 5
Waiharakeke	2,116	27	758	23 Mar., 1905	1,979	"	318	318	..	317 19 7
Waimana	14,292	46	973	20 June, 1895	5,402	"	2,000	2,000	..	2,000 0 0
Waimatanui	15,723	20	496	24 Mar., 1898	10,847	"	4,258	3,622	631 8 7 5	4,253 13 8
Waiotahi	6,050	71	2073	25 Aug., 1904	2,273	"	756	751	..	750 13 9
Waiotira	3,226	62	1214	10 Aug., 1893	1,613	"	322	162	150 5 10	312 2 6
Waipoua	58,200	74	1419	5 Oct., 1893	29,100	"	5,800	5,799	..	5,799 5 5
Waipu	6,257	65	1398	1 Sept., 1898	1,570	"	790	790	..	790 0 0
Wairere	1,930	79	2299	29 Sept., 1904	1,641	"	483	480	3 0 6	483 0 0
Waitoa	5,108	75	2287	30 Aug., 1906	9,332	"	3,830	..	854 16 7	854 16 7
Waoku	20,000	74	1298	22 Sept., 1892	10,000	"	2,000	2,310	84 13 9	2,394 17 11
Whangaingatakupu	2,543	17	301	9 Mar., 1893	1,462	"	395	170	..	169 18 4
Whareorino	975	73	1602	8 Aug., 1901	439	"	170	170	..	169 18 4
Wharepuhunga	16,600	73	1602	8 Aug., 1901	14,525	"	3,075	1,796	1,050 11 6	2,846 16 0
Wharepuhunga	31,700	45	1137	18 May, 1905	8,907	"	2,828	1,063	1,021 19 4	2,085 2 11
Whatitiri No. 1	5,628	51	1113	14 June, 1900	4,830	"	844	843	..	843 6 2
Whitikau	12,457	49	1736	6 June, 1907	10,859	"	4,567	..	841 10 8	841 10 8
Totals	100,467.2	..	..	..	605,402	..	186,886	134,547	18,420 1 8	152,967 16 0

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c.
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909

TARANAKI LAND DISTRICT.										
	Acres.				£		£	£	£ s. d.	£ s. d.
Aorangi	3,842	75	2153	8 Sept., 1904	2,519	Road-works	1,160	1,037	107 19 7	1,144 16 5
Aria	39	93	3006	26 Nov., 1908	532	"	265	..	..	..
Autawa	4,725	21	393	23 Mar., 1893	4,276	"	1,153	1,153	..	1,153 0 0
Eao	17,218	77	2191	2 Oct., 1902	13,890	"	6,361	6,341	20 1 11	6,361 0 0
Egmont, Block VI ..	1,683	57	1163	26 July, 1894	1,721	"	421	421	..	421 0 0
Eltham	3,200	19	340	16 Mar., 1893	3,150	"	800	800	..	800 0 0
Gatton	3,800	19	340	16 Mar., 1893	3,860	"	950	950	..	950 0 0
Huiroa	6,433	72	1273	15 Sept., 1892	5,318	"	2,093	2,093	..	2,093 0 0
Hurimoana	3,190	79	1774	3 Nov., 1898	2,981	"	797	797	..	797 0 0
Kaimanuka	9,987	72	1273	15 Sept., 1892	5,350	"	2,665	2,665	..	2,665 0 0
Kaipikari	4,273	79	1775	3 Nov., 1898	2,136	"	582	582	..	582 0 0
Kaitangiwhenua No. 2	33,430	27	510	5 April, 1894	15,667	"	6,393	6,393	..	6,393 0 0
Kaitangiwhenua Special Settlement	7,747	1	4	7 Jan., 1904	4,209	"	1,491	1,452	38 11 8	1,491 0 0
Kaupokonui	230	62	1215	10 Aug., 1893	230	"	58	58	..	58 0 0
Kohuratahi	3,548	79	1774	3 Nov., 1898	3,019	"	738	738	..	738 0 0
Kuraitei	4,465	14	360	15 Feb., 1900	1,855	"	617	617	..	617 0 0
Kuri	13,989	75	2153	8 Sept., 1904	4,921	"	1,985	1,984	..	1,984 2 0
Kururau	11,808	86	2323	28 Sept., 1905	7,568	"	3,490	3,444	45 1 1	3,489 6 10
Lepperton	2,775	83	1383	20 Oct., 1892	2,998	"	966	966	..	966 0 0
Llewellyn	4,594	15	397	9 Mar., 1896	3,445	"	862	862	..	862 0 0
Maben	4,680	65	1871	4 Aug., 1904	2,341	"	900	900	..	900 0 0
Makahu	6,551	66	1361	27 Aug., 1896	6,180	"	1,468	1,468	..	1,468 0 0
Makino	8,608	24	521	28 Feb., 1901	3,787	"	1,860	1,860	..	1,860 0 0
Mangaehu	492	72	1273	15 Sept., 1892	604	"	301	301	..	301 0 0
Mangaere	7,432	30	526	27 April, 1893	9,485	"	4,144	4,144	..	4,144 0 0
Mangamingi	6,629	15	336	18 Feb., 1892	9,040	"	4,286	4,286	..	4,286 0 0
Manganui-Egmont ..	2,833	72	1510	4 Oct., 1894	3,597	"	894	894	..	894 0 0
Mangaowata	10,501	77	2191	2 Oct., 1902	6,577	"	2,140	2,116	23 17 2	2,140 0 0
Mangaroa	4,969	77	2192	2 Oct., 1902	4,560	Roads and bridges	1,225	1,211	13 19 10	1,225 0 0
Mangatawa	6,804	2	3	9 Jan., 1902	3,796	Road-works	1,270	1,270	..	1,269 19 8
Marco	6,463	13	382	16 Feb., 1899	4,038	"	1,027	1,027	..	1,027 0 0
Mataro	1,486	42	953	18 May, 1899	668	"	260	260	..	260 0 0
Mauku	1,893	91	2031	2 Nov., 1899	1,136	"	284	284	..	284 0 0
Milsom	6,681	21	374	23 Mar., 1893	6,232	"	1,750	1,750	..	1,750 0 0
Mohakatino	4,600	42	1513	28 May, 1908	3,475	"	1,700	..	..	..
Mokau-Ohura	41,475	30	1007	14 April, 1904	27,175	"	12,595	12,591	3 10 9	12,595 0 0
Moki	8,734	99	2178	6 Dec., 1900	4,708	"	1,822	1,822	..	1,822 0 0
Ngatimaru, Blocks V, IX	4,565	23	412	30 Mar., 1893	4,745	"	1,940	1,940	..	1,940 0 0
Okoke	13,893	51	1049	5 July, 1894	9,275	"	2,369	2,367	..	2,366 11 1
Opaku-Kapara	17,496	4	26	12 Jan., 1893	6,996	"	2,793	2,793	..	2,793 0 0
Otunui	14,747	19	838	12 Mar., 1908	14,573	Roads and bridge	6,970	..	2,473 6 11	2,473 6 11
Oxford	4,000	4	23	12 Jan., 1893	3,550	Road-works	1,200	1,200	..	1,200 0 0
Patua	9,692	24	667	11 Mar., 1897	6,542	"	1,636	1,636	..	1,635 19 10
Patupuremu	17,966	77	2190-1	2 Oct., 1902	8,160	"	3,580	3,580	..	3,580 0 0
Piko	10,276	43	1009	25 May, 1899	6,928	"	1,784	1,782	..	1,782 7 9
Poarangi	3,835	14	361	15 Feb., 1900	2,419	"	550	550	..	550 0 0
Puniwhakau	10,641	19	340	16 Mar., 1893	7,615	"	1,926	1,926	..	1,926 0 0
Putiki	6,595	64	1358	27 July, 1899	3,620	"	1,144	1,143	..	1,143 7 2
Putikituna	4,229	14	360	15 Feb., 1900	2,064	"	789	789	..	789 0 0
Rangiwhakaoma	9,974	72	1501	4 Oct., 1894	3,823	"	1,421	1,421	..	1,421 0 0
Rawhitiroa	736 of 32,746	1	5	7 Jan., 1897	3,680	"	46	4	..	3 11 11
Rerekapa-Moanatairi	21,375	77	2189	2 Oct., 1902	12,182	Roads and bridges	5,835	5,710	124 19 10	5,834 19 10
Rimuputa	5,609	77	1715	27 Oct., 1898	3,229	Road-works	799	799	..	799 0 0
Ross	1,912	34	760	9 May, 1895	2,564	"	478	476	..	476 2 6
Tahora	2,311	90	1977	17 Oct., 1901	1,422	"	471	471	..	471 0 0
Tangitu	11,805	90	1977	17 Oct., 1901	7,463	"	2,140	2,140	..	2,140 0 0
Tanner	5,200	78	1361	10 Oct., 1892	5,950	"	1,780	1,780	..	1,780 0 0
Taumata	8,223	84	2261	21 Sept., 1905	3,812	"	1,616	992	623 13 4	1,615 19 4
Taurangi	21,500	77	2191	2 Oct., 1902	12,976	{ Roads and bridges }	5,865	5,864	..	5,863 15 10
Terrace End	10,393	60	1245	15 Aug., 1895	8,739	Road-works	2,173	2,173	..	2,173 0 0
Tirangi	8,098	77	2192	2 Oct., 1902	3,563	"	1,620	1,618	1 13 6	1,620 0 0
Upper Waitara	840	13	240	23 Feb., 1893	1,914	"	126	126	..	126 0 0
Vera	2,429	77	2189	2 Oct., 1902	1,488	"	320	320	..	320 0 0
Waiarara	16,797	81	2343	6 Oct., 1904	9,163	"	4,010	4,010	..	4,010 0 0
Waikaka	4,016	77	2190	2 Oct., 1902	3,254	Roads and bridges	960	909	51 8 9	960 0 0
Waiekeheho	590	72	1522	16 Aug., 1900	1,178	Road-works	419	419	..	418 16 9
Waikiekie	600	78	1698	15 Oct., 1896	788	"	150	150	..	150 0 0
Waingarara	1,634	78	1666	6 Sept., 1900	1,111	"	373	373	..	372 16 4
Waitangata	10,562	77	2190	2 Oct., 1902	8,617	"	2,575	2,493	54 1 3	2,547 3 6
Waro	11,244	52	1620	23 July, 1903	6,678	"	3,210	3,210	..	3,210 0 0
Whenuakura	10,927	19 4	340 57	16 Mar., 1893 10 Jan., 1901	5,652	"	1,690	1,690	..	1,690 0 0
Totals	556,517	..	..	..	373,377	..	136,531	124,725	4,909 6 8	129,635 6 4

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c.
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.
HAWKE'S BAY LAND DISTRICT.										
	Acres.				£		£	£	s. d.	£ s. d.
Hikurangi No. 2	4,115	82	1663	16 Nov., 1894	3,217	Road-works	520	497	..	497 5 5
Huiarau	7,750	90	1901 1902	21 Oct., 1897	2,695	"	1,000	737	..	736 10 7
Koranga	17,422	58	1991	4 July, 1907	13,649	"	2,613	..	807 16 6	807 16 6
Liberal	2,800	83	1388	20 Oct., 1892	2,500	"	400	400	..	400 0 0
Mangapoike	14,628	24	521	28 Feb., 1901	8,260	"	1,834	1,834	..	1,833 18 2
Mangatoro, Block I	1,700	38	857	3 May, 1900	1,329	"	425	425	..	424 19 5
Mangatoro 1A No. 1	5,016	60	1537	29 June, 1905	32,104	"	1,348	1,348	..	1,347 19 8
Moanui	24,865	59	1620	23 July, 1903	14,000	"	3,108	2,797	303 19 6	3,101 4 6
Motu	33,045	23	479	18 Mar., 1892	16,773	"	2,475	2,475	..	2,475 0 0
Ngapaeruru	44,816	86	1914	1 Dec., 1898	26,370	"	11,000	11,000	..	11,000 0 0
Ngapaeruru No. 2		20	548	15 Mar., 1900		"				
Nuhaka North	9,549	80	1365	13 Oct., 1892	4,632	"	568	568	..	568 0 0
Nuhaka No. 2	777	68	1324	7 Sept., 1893	486	"	58	58	..	58 0 0
Nuhaka No. 3	4,138	24	522	28 Feb., 1901	5,351	"	1,034	1,031	..	1,030 18 5
Piripiri	8,276	13	475	18 Feb., 1909	53,356	Roads and bridges	4,132	..	..	..
Pohui	4,306	90	1521	11 Nov., 1892	3,655	Road-works	538	538	..	538 0 0
Ruahine	5,154	61	1291	16 Aug., 1894	2,704	"	840	824	..	824 1 9
Ruakituri	4,855	46	939 955	21 June, 1894	4,575	"	364	364	..	364 0 0
Tahora No. 2 South	43,037	24	522	28 Feb., 1901	16,139	"	4,304	..	..	..
Tamaki	3,443	41	1042	4 May, 1905	48,345	"	3,440	3,340	..	3,340 0 0
Tamaki No. 1	3,042	67	2305	1 Aug., 1907		21,877	Roads and bridges	3,043	1,229	1,646 19 3	2,875 15 3
Tauwharetoi	9,404	68	1324	7 Sept., 1893	4,796	Road-works	1,175	1,169	..	1,169 0 0
Tuahu	16,723	67	1859	27 Aug., 1903	6,288	"	2,352	2,350	..	2,350 7 5
Tutamoe	3,073	58	1992	4 July, 1907	5,384	"	1,536	324	975 11 3	1,299 2 7
Umutaoroa	1,461	49	939	22 June, 1893	956	"	100	100	..	100 0 0
Waiau	8,961	23	412	30 Mar., 1893	4,215	"	1,405	1,183	..	1,182 14 6
Waimarama	8,490	11	395	11 Feb., 1909	64,167	Roads and bridges	6,028	..	..	..
Waipaoa	10,732	67	2305	1 Aug., 1907	10,439	Ditto ..	3,279	360	1,749 16 11	2,109 7 4
Waltahala	13,820	52	1619	23 July, 1903	8,660	Road works	2,990	2,935	55 0 4	2,990 0 0
Whakapaupakihi	14,379	52	1619	23 July, 1903	12,498	"	1,798	1,798	..	1,797 18 8
Whakarara, Section 14, Block XIII	508	16	342	1 Mar., 1894	406	"	38	38	..	38 0 0
Wharekopae-Tahora No. 2 ..	14,401	24	522	28 Feb., 1901	11,869	"	1,440	1,432	..	1,431 18 0
Woodville	254	49	939	22 June, 1893	286	"	25	25	..	25 0 0
Totals	344,940	..	..	..	411,981	..	65,210	41,179	5,539 3 9	46,716 18 2

WELLINGTON LAND DISTRICT.

Ahuahu	28,999	61	1682	30 Aug., 1903	15,115	Roads and bridges	7,250	2,344	2,383 19 3	4,727 19 7
Awarua 1B	18,291	104	2723	23 Nov., 1905	16,132	Ditto ..	6,610	2,841	2,804 9 1	5,645 4 1
Clifton No. 1	4,650	28	539	31 Mar., 1892	4,081	Road-works	1,163	1,163	..	1,163 0 0
Dannevirke Centennial	11,022	19	340	16 Mar., 1893	5,233	"	2,494	2,494	..	2,493 19 10
East Puketoi	83,500	23	479	18 Mar., 1892	83,500	"	19,375	19,375	..	19,375 0 0
Gladstone	7,597	24	482	28 Mar., 1894	5,822	"	1,899	1,898	..	1,898 8 3
Hall	3,175	19	340	16 Mar., 1893	4,871	"	794	794	..	794 0 0
Hautapu, Blocks XI, XIV, XV	6,188	92	1567	24 Nov., 1892	5,469	"	1,573	1,567	..	1,567 0 0
Hautapu No. 2	6,895	65	1272	24 Aug., 1894	7,207	"	1,714	1,714	..	1,713 15 10
Hautapu-Ruahine	19,804	74	1297	22 Sept., 1892	22,154	"	6,931	6,932	..	6,931 12 3
Hautapu-Ruahine No. 2	16,771	87	1841	28 Nov., 1895	11,152	"	4,192	4,192	..	4,192 0 0
Hikimutu	16,290	49	1735	6 June, 1907	21,126	"	4,072	105	2,496 4 9	2,600 17 9
Horopito	400	72	1505	2 Oct., 1894	350	"	100	..	..	..
Horopito West	365	81	2661 2670 2673	22 Oct., 1908	9,861	"	2,731	..	..	..
Kaiparoro	9,409	60	1245	15 Aug., 1895	6,414	"	1,174	1,174	..	1,174 0 0
Kaiparoro No. 2	400	30	773	1 April, 1897	150	"	50	50	..	50 0 0
Kaitangata	7,105	89	1863	5 Dec., 1895	4,215	"	884	884	..	884 0 0
Kaitieke	45,500	12	283	14 Feb., 1895	41,700	"	11,375	11,365	9 1 8	11,373 15 10
Kaiwaka, Blocks IV, VIII, XI	4,789	4	56	10 Jan., 1901	1,768	"	598	598	..	598 0 0
Kakahi Village Settlement ..	17	73	2497	24 Sept., 1908	710	"	231	..	..	..
Kakariki	5,000	23	413	30 Mar., 1893	5,786	"	1,562	1,562	..	1,562 0 0
Kawautahi	7,677	49	1736	6 June, 1907	10,814	"	1,919	97	1,168 13 0	1,265 14 4
Kawhatau	5,644	94	1951	21 Dec., 1894	6,625	"	1,425	1,425	..	1,425 0 0
Kirikau	13,642	49	1736	6 June, 1907	18,584	"	3,410	242	1,774 2 1	2,016 5 3
Makotuku, Block III	1,608	1	4	7 Jan., 1904	1,860	"	402	402	..	402 0 0
Malton Farm Homestead	1,208	80	1637	8 Oct., 1894	944	"	302	302	..	302 0 0
Manganui and Ruapehu	7,350	46	958	21 June, 1894	6,337	"	1,838	1,838	..	1,838 0 0
Mangoira-Coal Creek	6,500	74	1297	22 Sept., 1892	8,204	"	2,031	2,030	..	2,030 0 0
Marton No. 3	9,078	79	2162	8 Oct., 1903	8,050	"	2,270	2,270	..	2,270 0 0
Maungakaretu	508	7	273	1 Feb., 1906	1,311	"	254	254	..	254 0 0
Mecalickstone	6,011	19	339	16 Mar., 1893	4,834	"	1,503	1,503	..	1,503 0 0
Moumahaki	526	72	1274	15 Sept., 1892	440	"	156	156	..	156 0 0
Moumahaki Village Settlement	824	7	131	25 Jan., 1894	6,311	"	1,360	1,360	..	1,360 0 0
Carried forward	356,743	..	..	..	347,130	..	93,642	72,931	10,636 9 10	83,566 13 0

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c.
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.
WELLINGTON LAND DISTRICT—continued.										
	Acres.				£		£	£	£ s. d.	£ s. d.
Brought forward ..	356,743	..	..	..	347,130	..	93,642	72,931	10,636 9 10	83,566 13 0
Mount Baker ..	8,291	15	336	18 Feb., 1892	8,710	Road-works	2,487	2,487	..	2,487 0 0
Mowhanau Village Settlement ..	380	7	255	29 Jan., 1903	5,320	"	380	378	..	378 7 9
Ngamatea-Maungakaretu ..	8,315	4	55	10 Jan., 1901	6,491	"	2,078	2,078	..	2,078 0 0
Ngaurukehu ..	1,092	4	55	10 Jan., 1901	1,092	"	409	409	..	408 19 2
Nireaha Village Settlement ..	552	74	2619	22 Aug., 1907	5,648	Roads and drains	250	250	..	249 18 4
North-east Puketoi ..	13,300	15	336	18 Feb., 1892	16,455	Road-works	3,990	3,990	..	3,990 0 0
Ohakune Village Settlement ..	539	81	2669 2697	22 Oct., 1908	6,434	"	2,776	..	93 15 3	93 15 3
Ohinewairua ..	7,462	11	242	28 Jan., 1897	7,491	"	1,865	1,864	..	1,864 1 3
Ohinewairua, Block XIII ..	876	4	55-6	10 Jan., 1901	2,734	"	481	481	..	481 0 0
Ohinewairua-Pukeokahu ..	9,785	4	56	10 Jan., 1901	9,330	"	2,935	2,935	..	2,935 0 0
Omahine, Block I ..	455	8	152	2 Feb., 1893	341	"	114	114	..	114 0 0
Onslow ..	2,405	34	640	28 April, 1892	1,327	"	601	600	..	600 0 0
Orakura ..	4,456	78	1803	21 Sept. 1899	6,691	"	1,114	1,114	..	1,114 0 0
Oroua-Coal Creek ..	5,630	15	336	18 Feb., 1892	6,178	"	1,050	1,050	..	1,050 0 0
Owhanga ..	35	81	2371 2374	22 Oct., 1908	1,600	"	795	..	..	..
Palmerston North Knights of Labour ..	10,995	28	539	31 Mar., 1892	12,222	"	2,749	2,749	..	2,749 0 0
Pohangina ..	4,722	28	539	31 Mar., 1892	4,250	"	1,181	1,181	..	1,181 0 0
Pohonuiatane ..	27,754	19	340	16 Mar., 1893	26,476	"	6,959	6,958	..	6,958 6 0
Pukeokahu ..	11,379	87 10	1841 283	28 Nov., 1895 13 Feb., 1896	11,957	"	2,844	2,844	..	2,844 0 0
Puketoi-Aohanga ..	1,277	92	1933	19 Dec., 1895	1,027	"	319	319	..	319 0 0
Rangataua ..	153	73 81	2497 2671 2674	24 Sept., 1908 22 Oct., 1908	4,418	"	1,913	..	..	..
Raupiu ..	3,080	49	1433	25 June, 1903	2,457	"	385	385	..	385 0 0
Retaruke ..	16,055	49	1736	6 June, 1907	20,386	"	4,014	258	1,671 11 10	1,929 8 3
Ruatiti ..	18,500	85	2649	11 Oct., 1906	13,875	"	4,625	650	1,552 7 5	2,202 4 1
Salisbury and Delaware ..	13,392	28	539	31 Mar., 1892	14,257	"	3,348	3,348	..	3,348 0 0
Sommerville ..	8,566	28	539	31 Mar., 1892	9,085	"	2,142	2,142	..	2,142 0 0
South Kaitieke ..	9,612	62	1738	6 Aug., 1903	5,357	"	2,403	164	1,591 10 7	1,755 19 0
Stirling ..	4,770	28	539	31 Mar., 1892	6,678	"	1,193	1,192	..	1,192 0 0
Taihapa Village Settlement Extension ..	117	1	3, 4	7 Jan., 1904	278	"	117	117	..	117 0 0
Taonui-Maraetaua-Pukewhaka ..	9,799	49 85	1186 2486	25 May, 1905 27 Oct., 1904	8,893	"	2,450	333	53 8 4	386 6 7
Tapui Settlement ..	1,267	15 17	560 677	14 Feb., 1907 21 Feb., 1907	1,724	"	474	474	..	474 0 0
Tararua ..	3,993	19	340	16 Mar., 1893	4,592	"	998	998	..	998 0 0
Tauakira ..	20,736	72	1522	16 Aug., 1900	16,551	"	2,592	2,592	..	2,592 0 0
Te Mara ..	3,549 of 18,700	56	1092	13 July, 1893	2,384	"	436	428	..	427 16 3
Te Ngaue ..	1,470	54	1106	16 July, 1896	1,286	"	367	367	..	367 0 0
Te Ruanui ..	1,545	4	55	10 Jan., 1901	4,256	"	386	386	..	386 0 0
Tiriraukawa-Hautapu ..	5,622	4	56	10 Jan., 1901	5,250	"	1,686	1,686	..	1,686 0 0
Tupapanui ..	2,614	65	2090	2 Aug., 1906	2,614	"	653	175	338 13 10	513 8 9
Umutoi ..	2,200	28	539	31 Mar., 1892	1,675	"	550	550	..	550 0 0
Upper Makohine ..	14,201	24	564	7 April, 1898	15,851	"	3,230	3,230	..	3,229 19 11
Waimarino ..	20,900	15	336	18 Feb., 1892	16,880	"	7,837	7,836	..	7,835 10 6
Waiwera ..	3,900	23	413	30 Mar., 1893	4,101	"	1,460	1,460	..	1,460 0 0
Wanganui ..	6,222	19	340	16 Mar., 1893	6,046	"	1,556	1,556	..	1,556 0 0
Wellington Fruit-growers' Association ..	2,608	72	1274	15 Sept., 1892	8,543	"	1,304	1,304	..	1,304 0 0
Totals ..	651,314	..	..	..	666,341	..	175,138	136,363	15,937 17 1	152,299 14 1

NELSON LAND DISTRICT.

Big Bush ..	14,309	73	2229	23 Aug., 1906	4,469	Road-works	715	530	184 14 0	715 0 0
Brewerton ..	3,757	107	2230	7 Dec., 1905	939	"	197	188	0 16 10	188 18 5
Brighton ..	1,507	86	2323	28 Sept., 1905	1,168	"	188	13	130 3 3	143 12 9
Dart ..	7,931	12	611-12	20 Feb., 1908	2,758	"	594	..	272 0 5	272 0 5
Glenroy ..	13,127	58	2010	4 July, 1907	4,489	"	984	5	335 14 11	341 3 7
Heaphy ..	13,030	109	2362	14 Dec., 1905	4,029	"	1,344	..	..	..
Hope ..	3,311	99	2638	16 Nov., 1905	828	"	248	122	..	121 11 6
Inangahua ..	3,184	90	2423	19 Oct., 1905	1,658	"	781	694	7 18 0	701 14 6
Inangahua Junction ..	4,220	1	5	9 Jan., 1908	2,303	"	1,055	..	278 5 10	278 5 10
Kongahu ..	15,794	90	2424	19 Oct., 1905	6,152	"	2,735	..	580 18 11	580 18 11
Lee River ..	2,516	84	2276	21 Sept., 1905	629	Roads and bridges	314	..	313 15 9	313 15 9
Mangles-Blackwater ..	8,108	67	2308	27 Aug., 1908	3,839	Road-works	608	..	..	..
Maruia ..	22,445	90	2422	19 Oct., 1905	7,601	"	3,143	1,705	938 8 7	2,643 16 7
Maruia North ..	19,311	60	1946	19 July, 1906	6,220	"	3,110	1,819	1,289 17 11	3,108 11 9
Matakitaki ..	4,728	102	3150	17 Dec., 1908	1,773	"	591	..	..	..
Carried forward ..	137,278	..	..	..	48,855	..	16,607	5,076	4,332 14 5	9,409 10 0

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c.
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.

NELSON LAND DISTRICT—continued.										
Brought forward	Acres. 137,278	..	..	..	£ 48,855	..	£ 16,607	£ 5,076	£ s. d. 4,332 14 5	£ s. d. 9,409 10 0
Matiri	11,620	90	2423	19 Oct., 1905	4,386	Road-works	1,536	1,086	401 6 0	1,487 0 0
Matiri East	9,361	15	569	14 Feb., 1907	2,819	{ Roads and bridges }	701	603	97 16 9	701 0 0
Maungatapu	2,632	3	80	18 Jan., 1906	1,135	Road-works	197	169	28 7 2	196 19 6
Mid Marua	21,750	42	1467	9 May, 1907	9,663	"	2,175	13	476 10 2	489 1 4
Mokihinui	8,013	47	1673	30 May, 1907	2,951	"	1,133	71	683 16 7	754 9 4
Mount Arthur	4,350	90	2425	19 Oct., 1905	1,087	"	326	326	..	326 0 0
Mount Arthur No. 2 ..	14,484	90	1523	11 Nov., 1892	4,345	"	1,086	199	664 9 11	863 18 10
Murchison Village Settlement	31	2	12, 13	10 Jan., 1907	249	"	62	..	..	..
Nuggety	5,698	93	2992	26 Nov., 1908	2,407	"	712	..	..	..
Oparara	19,635	99	2638	16 Nov., 1905	7,076	"	2,699	..	21 0 0	21 0 0
Orikaka	20,052	95	2528	2 Nov., 1905	5,184	"	2,506	..	..	..
Otumahana	20,824	90	2424	19 Oct., 1905	6,069	"	2,603	..	109 0 4	109 0 4
Owen	5,233	95	2528	2 Nov., 1905	1,538	"	623	561	61 12 2	622 19 6
Owen East	7,707	109	2862	14 Dec., 1905	2,473	"	549	547	..	546 19 3
Rainy River	9,584	95	2528	2 Nov., 1905	2,700	"	726	541	165 14 5	706 10 4
Rappahannock	7,109	47	1674	30 May, 1907	2,658	"	711	..	..	..
Spooner Range	3,793	75	2257	30 Aug., 1906	1,092	"	96	54	..	53 10 7
Tadmor	2,109	14	592	22 Feb., 1906	537	"	116	116	..	116 0 0
Totaranui	7,547	99	2639	16 Nov., 1905	2,037	"	566	14	..	14 3 4
Totaranui No. 3	1,990	17	649	1 Mar., 1906	497	"	100	..	..	..
Upper Aorere	3,475	104	3150	13 Dec., 1906	1,043	"	87	..	31 4 1	31 4 1
Wairoa Forks	7,978	47	1688	18 June, 1908	1,995	"	576	..	376 3 7	376 3 7
Wangamoa	11,940	26	958	9 April, 1903	5,371	"	298	..	..	..
Wareatea	829	93	2992	26 Nov., 1908	326	"	163	..	..	..
Warwick	5,821	112	2950	21 Dec., 1905	2,338	Roads and bridges	582	..	..	..
Westport	2,279	47	1673	30 May, 1907	791	Road-works	332	321	..	320 15 2
Totals	353,122	..	..	..	121,622	..	37,868	9,697	7,449 15 7	17,146 5 2

MARLBOROUGH LAND DISTRICT.										
Bartlett's Creek	4,481	46	1357	11 June, 1903	1,617	Road-works	404	404	..	403 19 5
Hundalee	38,329	30	773	1 April, 1897	24,540	"	7,500	7,500	..	7,500 0 0
Kaitao	9,436	97	2081	18 Nov., 1897	5,676	"	2,500	2,500	..	2,499 17 5
Pine Valley	19,744	30	729	6 April, 1899	7,452	"	1,863	1,444	2 4 8	1,446 10 2
Puhipuhi	36,329	68	1477	10 Aug., 1899	15,709	"	4,169	4,169	..	4,169 0 0
Rimu Gully	1,456	91	2022	20 Dec., 1898	1,918	"	639	93	310 4 5	402 17 7
Ronga Valley No. 1 ..	588	58	1991	4 July, 1907	1,615	"	150	..	..	..
Stag and Spey	12,246	81	2659	22 Oct., 1908	11,148	"	2,787	2,787	..	2,787 0 0
Tinline	1,650	34	821	4 April, 1901	805	"	201	201	..	200 18 6
Waipapa	49,410	18	527	6 Mar., 1902	17,662	"	1,766	1,764	..	1,764 0 0
Totals	173,669	2	4	9 Jan., 1902	88,142	..	21,979	20,862	312 9 1	21,174 3 1

WESTLAND LAND DISTRICT.										
Bruce Bay	2,806	20	894	19 Mar., 1908	800	Road-works	240	..	239 18 9	239 18 9
Clearwater	772	83	2708	29 Oct., 1908	312	"	75	..	..	..
Haast River	2,527	83	2709	29 Oct., 1908	1,200	"	100	..	..	..
Mount Bonar	747	73	2226	23 Aug., 1906	250	"	100	..	99 19 9	99 19 9
Okuru	1,044	59	2026	30 July, 1908	300	"	100	..	..	..
Punakaiki	6,078	52	1774	2 July, 1908	2,195	"	595	..	12 10 4	12 10 4
Waitaha	4,270	52	1160	28 May, 1901	5,362	"	1,341	1,342	..	1,341 10 6
Wataroa	2,847	89	3025	10 Oct., 1907	1,300	"	250	..	45 2 3	45 2 3
Totals	21,091	..	..	..	11,719	..	2,801	1,342	397 11 1	1,739 1 7

CANTERBURY LAND DISTRICT.										
Ruapuna	847	80	1640	8 Nov., 1894	1,270	Road-works	106	75	..	75 0 0
Waimate Reserve No. 1126	626	72	1273	15 Sept., 1892	6,269	"	300	300	..	300 0 0
Waimate Reserve No. 1128	505	72	1273	15 Sept., 1892	7,268	"	25	25	..	25 0 0
Waimate Reserve No. 1178	157	72	1273	15 Sept., 1892	2,193	"	25	25	..	25 0 0
Totals	2,135	..	..	..	17,000	..	456	425	..	425 0 0

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

STATEMENT showing the BLOCKS of LAND which have been proclaimed under "The Local Bodies' Loans Act, 1908," &c.
—continued.

Name of Block.	Area of Block.	Gazetted.			Surveyor-General's Report.			Expenditure.		
		No.	Page.	Date.	Valuation of Block.	Works required to open up such Block.	Estimated Cost proposed to be borrowed.	To Mar. 31, 1908.	From April 1, 1908, to March 31, 1909.	Total to March 31, 1909.
OTAGO LAND DISTRICT.										
	Acres.				£		£	£	£ s. d.	£ s. d.
Blackstone	22,535	10	233	7 Feb., 1895	24,748	Road-works	500	500	..	500 0 0
Catlin's (Blocks IV, V, VI, VII)	8,580	16	530	23 Feb., 1905	3,828	"	1,057	1,057	..	1,056 17 9
Catlin's, Block II	196	13	246	23 Feb., 1893	196	"	50	50	..	50 0 0
Gimmerburn	8,682	24	481	29 Mar., 1894	6,152	"	1,032	1,032	..	1,032 0 0
Glenomaru, Blocks III, IV, V, VII, IX, X	1,495	95	1606	8 Dec., 1892	946	"	237	179	..	179 0 0
Glenomaru, Block VI	25	62	1211	10 Aug., 1893	80	"	25	25	..	25 0 0
Lauder-Blackstone	3,809	24	481	29 Mar., 1894	3,608	"	476	476	..	476 0 0
Lauder-Tiger Hill	28,823	24	481	29 Mar., 1894	22,112	"	1,000	1,000	..	1,000 0 0
Lower Wanaka	3,368	34	714	10 May, 1894	1,250	"	101	101	..	101 0 0
Maniototo	277	24	481	29 Mar., 1894	245	"	104	100	..	100 0 0
Maniototo No. 2	6,916	10	233	7 Feb., 1895	5,911	"	907	600	..	600 0 0
Maniototo No. 3	6,295	12	284	14 Feb., 1895	6,001	"	300	300	..	300 0 0
Maruenua	49,116	15	336	18 Feb., 1892	72,246	"	7,000	7,000	..	7,000 0 0
Naseby, No. 2	2,444	23	479	18 Mar., 1892	2,038	"	313	313	..	313 0 0
Naseby, Maniototo, and Gimmerburn	5,277	79	1774	3 Nov., 1898	3,677	"	910	910	..	910 0 0
Rankleburn, Block VI	544	102	1744	29 Dec., 1892	194	"	136	136	..	136 0 0
Rimu	1,609	13	246	23 Feb., 1893	525	"	249	..	..	..
Swinburn	1,790	28	740	25 Mar., 1897	1,610	"	288	288	..	288 0 0
Tahaukupu	2,817	40	656	18 May, 1893	2,256	"	675	675	..	675 0 0
Tautuku, Block I	3,850	13	245	23 Feb., 1893	2,800	"	555	555	..	555 0 0
Tuapeka West, Blocks I, II, III, IV, VII, VIII	2,545	102	1742	29 Dec., 1892	1,681	"	367	367	..	367 0 0
Woodlands, Blocks II, V, VI, VIII	13,400	102	1745	29 Dec., 1892	11,225	"	4,950	4,950	..	4,950 0 0
Woodlands, Blocks VII, X, XI	1,693	15	336	18 Feb., 1892	1,384	"	307	307	..	307 0 0
Totals	176,086	74	1297	22 Sept., 1892	174,713	..	21,539	20,921	..	20,920 17 9
SOUTHLAND LAND DISTRICT.										
Ackers	351	68	1327	7 Sept., 1893	702	Road-works	220	217	..	216 16 3
Alton No. 2	2,722	21	831	22 Mar., 1906	1,269	"	317	..	247 19 6	247 19 6
Hillend	857	112	2950	21 Dec., 1905	433	"	108	108	..	108 0 0
Hokonui	404	7	149	30 Jan., 1896	253	"	95	85	..	85 7 10
Hokonui No. 2	1,181	39	1021	27 April, 1905	714	"	152	152	..	151 17 2
Invercargill Hundred, Block XXIII	1,403	81	2182	7 Sept., 1905	1,840	"	400	400	..	400 0 0
Lillburn, Monowai, and Alton	30,059	72	1273	15 Sept., 1892	13,299	"	8,000	8,000	..	8,000 0 0
Longwood	2,827	83	1389	20 Oct., 1892	1,322	"	330	65	16 14 10	81 13 0
Longwood, Blocks XVI and I	5,659	16	529	23 Feb., 1905	2,830	"	1,400	1,400	..	1,400 0 0
Lora	2,913	90	1529	11 Nov., 1892	1,330	"	332	267	64 10 6	331 18 10
Mabel	343	73	1884	3 Aug., 1905	231	"	392	267	..	331 18 10
Mokoreta	7,400	73	1883	3 Aug., 1905	3,700	"	58	58	..	58 0 0
Otapiri	616	23	411	30 Mar., 1893	313	"	492	202	..	201 19 5
Oteramika	6,253	73	1883	3 Aug., 1905	2,006	"	78	76	1 15 0	77 9 10
Paterson, Block I	633	71	1377	21 Sept., 1893	256	"	625	266	15 7 8	281 3 9
Waiau (Blocks XIII and XIV, Waiau Survey District)	5,472	23	411	30 Mar., 1893	2,070	"	158	158	..	158 0 0
Waikawa	6,000	83	2221	14 Sept., 1905	3,000	"	732	732	..	732 0 11
Waikawa No. 1	1,194	28	412	30 Mar., 1893	663	"	1,500	1,500	..	1,500 0 0
Waikawa, Block II	307	84	2260	21 Sept., 1905	663	"	331	124	187 7 5	311 8 11
Waikawa-Otara	31,615	90	1901	21 Oct., 1897	643	"	186	62	65 4 2	127 8 10
Waikawa-Otara Extension	1,647	23	411	30 Mar., 1893	15,500	"	7,750	7,750	..	7,749 12 5
Waimatua	6,131	67	1919	11 Aug., 1904	664	"	199	107	86 8 0	193 12 0
Winton	2,023	70	2402	10 Sept., 1905	10,447	"	1,990	..	1,061 2 3	1,061 2 3
Totals	118,020	77	2019	24 Aug., 1905	1,515	..	379	379	..	379 0 0
Totals	118,020	..	..	..	65,000	..	25,832	22,108	1,746 9 4	23,855 10 11
SUMMARY.										
Auckland Land District ..	1,004,672	..	..	..	605,402	..	186,886	134,547	18,420 1 8	152,967 16 0
Taranaki	556,517	..	..	..	373,377	..	136,531	124,725	4,909 6 8	129,635 6 4
Hawke's Bay	344,940	..	..	..	411,981	..	65,210	41,179	5,539 3 9	46,716 18 2
Wellington	651,314	..	..	..	666,341	..	175,138	136,363	15,937 17 1	152,299 14 1
Nelson	353,122	..	..	..	121,622	..	37,868	9,697	7,449 15 7	17,146 5 2
Marlborough	173,669	..	..	..	88,142	..	21,979	20,862	312 9 1	21,174 3 1
Westland	21,091	..	..	..	11,719	..	2,801	1,342	397 11 1	1,739 1 7
Canterbury	2,135	..	..	..	17,000	..	456	425	..	425 0 0
Otago	176,086	..	..	..	174,713	..	21,539	20,921	..	20,920 17 9
Southland	118,020	..	..	..	65,000	..	25,832	22,108	1,746 9 4	23,855 10 11
Totals	3,401,566	..	..	..	2,535,297	..	674,240	512,169	54,712 14 3	566,880 13 1

* The figures give the totals to the nearest pound for the year ending 31st March, 1908.

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1909.
NEW ZEALAND.

TARARUA RANGES

(REPORT BY MR. J. COWAN ON EXPEDITION TO THE SUMMIT OF THE).

Return to an Order of the House of Representatives dated the 22nd October, 1909.

Ordered, "That the report of Mr. J. Cowan, of the Tourist Department, on the expedition to the summit of the Tararua Ranges by way of the Otaki Gorge in March last, undertaken for the purpose of inspecting a route to Mount Hector, the second-highest peak of the Tararuas, be laid upon the table of the House."—(MR. FIELD.)

REPORT.

Tourist Department, 8th March, 1909.

Route from Otaki to Mount Hector, Tararua Ranges.

I BEG to report that, acting on your instructions, I went up to Otaki with Mr. W. H. Field, M.P., last Friday, and made the ascent of the Tararua Mountains from the north-western side, in order to examine the character of the proposed route from the Otaki Gorge to the summit of Mount Hector.

At Otaki Gorge we were joined by Mr. D. R. Mills and five other settlers, and on Friday evening arrived at the Forks, near the termination of the present horse-track, about fourteen miles from Otaki Township. The Forks is at the junction of the Otaki, Waitatapia, and Waiotauru Rivers, which descend rapidly from the mountains through deep and narrow gorges. Here our party pitched camp, and began the exploration of the route to the top of the range as soon as it was light enough to move on Saturday morning.

Mount Hector, 5,016 ft., is the second-highest peak in the Tararua Mountains. The Mitre, 5,154 ft., north of Mount Holdsworth, is the highest point of the range; Holdsworth is 4,835 ft. Hector can be reached from the south-eastern side (the nearest way is from the vicinity of Kaitoke Station), but only with great difficulty. The Otaki people are anxious to open up a track to the range-top from their side, and our party wished to get an idea of the character of the country for track-making not only on this side, but also on the other slope of the watershed, as far as a rapid survey would allow them.

The distance in a straight line from the Forks (which is a little under 900 ft. above sea-level) to Mount Hector is between six and seven miles; the route we traversed would be about ten miles to the dip in the range-top between Mounts Dennan and Hector. From the junction of the three streams at the Forks a long leading ridge trends up to Dennan and Hector. We followed this ridge all the way up to Dennan, passing through the bush, and emerging on the tussock slopes where snow lies in the winter; then our party went on to the high saddle between the two mountains.

The first mile or so of the route was an ascent through partly cleared and burnt bush, then we struck into the bush by a blazed track which kept to the summit of the narrow ridge. The upper Otaki River was on our left hand and the Waiotauru on our right. This ridge was in the form of a rough triangle with its apex at the Forks. The forest which covers it from the limit of the cleared land up to the alpine-vegetation line is exceedingly dense. There was no cleared path, but only a "blazed" track, in many places hard to find and difficult to follow because of the undergrowth and fallen trees. In some places there were very steep "pinches" to climb, but for the most part it was a gradual and regular ascent up to the snow-line, where the alpine grass began, and where the grade became sharper as the peaks were approached. We passed through about four miles of bush as we climbed from the junction of the rivers. First there was the usual North Island forest, with the nikau palms and very fine tree-ferns and other tropical-looking plants; then the lower mountain-forest growth of rata, rimu, miro, totara, tawai, &c.; then the trees diminished in size until we reached the dwarf totara belt and clumps of fagus trees of low wide-branched form, spreading so close to the ground that we had to stoop down to pass under their boughs (snow evidently lies on them heavily every winter); next thickets of wiry mountain-broom and koromiko and other alpine scrub growing very close and thick; then the snow-grass,

tussock, and alpine-flower belt, extending all along the summit of the range. In the lower parts of the forest the nikau palm is very plentiful, and it seems to thrive lower down in the gorge even out in the open, away from the shelter of forest-trees. This is rather remarkable, as the nikau usually requires the shade and protection of the undisturbed bush. Ferns, including the beautiful *Todea superba*, were in abundance on the ridge. It was too late in the season to see any of the ranunculus family in bloom on the snow-country belt, but mountain daisies were numerous, and also one or two kinds of gentians, pretty white flowers with delicate blue lines or pencillings, resembling flowers I have seen on the slopes of Mount Tongariro.

Bird-life was not plentiful in the bush. There was abundance of miro and other trees, on the berries of which the pigeons feed, but the birds would probably not be seen in numbers until about May, when the berries are ripe. There were a few kakas, and we heard and saw two or three makomakos (bell-birds), tuis, and riroriros, but otherwise the forest was a very silent one.

Emerging from the alpine scrub and climbing up a steep face covered with snow-grass, mountain-flax, and dwarf koromiko, we were able to see something of the mountain country around us. It was extremely wild and broken, quite as wild as any country in the northern part of the South Island before the true Alps are reached, and, except for the snow-grass tops of the mountains, reminding me very much of the heart of the Urewera Country. From the central ridge that was still more than a thousand feet above us there stretched on either side of our ridge a series of other spurs, tussock-yellow and brown on their upper parts, then thickly forested as they sloped away to the north and north-west. They were just like great ribs; the precipitous-sided main range was the spine. Between each sharp rib there was a deep seemingly impenetrable gorge, filled with smoky blue; the sides of these gorges were mostly thickly clothed with forest, with a bare rock face here and there.

We had come all this way without crossing any stream, for we had taken the crest of the spur; but just at the edge of the snow-line two of our party, by prospecting down the side of the gully, found a small spring.

From the top of the first steep snow-grass hill above the alpine scrub it was now easier going, or, at any rate, clearer, although the grade became steep. We now climbed to the top of Mount Dennan. The upper slopes of this peak had to be crossed before we could reach Hector. At the trig. station on Dennan I remained, while Mr. Field and the others went on over the flat top of the next ridge and on to the slopes of Hector. They ascended some way, but had then to return in order to reach camp again by dark. Dennan is a very sharp-topped peak; but it is several hundred feet lower than the next ridge, which is marked "Flat Top" on the survey maps, and which is the most conspicuous object in the range as one looks up the Otaki Valley.

We now had very grand views of the surrounding country: looking west there was the great round-backed mountain Kapakapanui (3,615 ft.), the traditional "Lightning Mountain" of fatal omen of the Ngatitōa Tribe; then the sea and Kapiti Island; a little southward was Cook Strait and the mountains of the South Island. Northward there was range after range of sharp blue mountains. Away some miles north of us there was the double-pointed mountain which the Maoris say is the *tino* of the range—that is, the exact place from which the mountains take their name. "Tara-rua" means "Two Peaks": it is to this part that the Maori name is said to particularly apply. In a straight line north of our viewpoint on Mount Dennan lay Mount Crawford, 4,795 ft. From the slopes of Mount Hector the Hutt Valley and Wellington Harbour were seen, and in the south-east the plains of the Wairarapa. Had it not been for the bush-fires in the valleys below—the settlers' summer burning-off fires—the view would have been much more extensive, for it is said that Egmont and Ruapehu can be easily seen from Mount Dennan on a clear day.

A remarkable and important feature about the high snow-grass saddle on the range-top between Mounts Dennan and Hector is that there is, as reported by the members of the party, a series of small lakes or tarns of excellent drinking-water. There are a score or more of these lakelets lying in the dip between "Flat Top" and Hector, about 4,500 ft. above sea-level. The tarns are quite close to each other, but are at varying levels. They evidently never dry up, and they are not stagnant; there is an outlet, and they are, no doubt, fed by springs from the upper part of Mount Hector. The presence of these little lakes and ponds adds considerably to the possible value of the place as a resort for travellers, for the saddle would make a very good summer camping-place. There is no wood just here for cooking, but enough to boil the billy could be taken from the edge of the scrub below. A camping-ground such as this, so close to the mountain-top, would be a place of magnificent possibilities for the artist, and for those who love wild mountain scenery.

The top of the watershed was reached at about noon: the journey had occupied about seven hours from the Forks camp. Leaving the slopes of Mount Dennan again at about 3 o'clock, and halting half an hour for a billy of afternoon tea where we had had lunch on the way up at the edge of the alpine bush, we returned to camp, reaching the edge of the timber just before dusk, and the Forks at 7 o'clock. The whole journey, about twenty miles of walking and climbing, took about fourteen hours, including rests.

As the result of the expedition and from what I saw of the country, I am of opinion that this is a trip that could very well be added to our tourist routes. To a large extent it is of local importance, concerning chiefly the Otaki district, but there is a good deal of interest for visitors in and about Otaki and Waikanae, and there is very good fishing in the streams; and a mountain excursion of this sort would be an additional and important attraction. The scenery is so fine that it deserves to be made more accessible. At present the ascent as we made it is too severe to be undertaken except by those used to the bush and to rough hill-climbing; and a good bushman-guide would be necessary. From my observations, I think a horse-track could be made from the Forks right up to Mount Dennan: there are no gullies to cross, and only two or three steep places

where sidelings would be necessary, until the snow-line is reached. The length of the horse-track required would be, say, eight to nine miles; the grade would be easy until the upper slopes of Mount Dennan were reached, when it would become about as steep as that of the horse-track which leads up to the Saddle on Ben Lomond, Lake Wakatipu.

A foot-track could be cleared first to the upper edge of the bush. This the settlers who were with us considered could be done at little expense; some of them considered that the expenditure of £200 would give a riding-track right up to Mount Dennan.

Mr. Mills and some of the other Otaki Gorge settlers think that by going up past the Forks along the Waiotauru Creek (the southern tributary of the Otaki) for two miles or a little less, and then striking up the next ridge to that which we traversed, an even better, or, at any rate, a shorter, route to the foot of Mount Dennan could be obtained. It would no doubt shorten the bridle-track work required, for a riding-track now goes up along the Waiotauru for some distance above the Forks to Sheridan's clearing; but it seemed to me that it would have the disadvantage of ending in a very precipitous face on the north-western side of Dennan, where the track would require to be cut out of the mountain-side, and would be liable to be carried away by the melting of the snow. The settlers intend exploring this spur up to the main ridge. What is required, however, is a proper survey of these two suggested routes from the Forks.

The total distance from Otaki Railway-station to the summit of the Tararua Range by way of the Forks and the route which we followed is approximately twenty-two miles. The vehicle-road is now being completed up the Otaki Gorge, so that it will shortly be possible to drive up to the Forks, which will then be reached in about two hours from the railway.

J. COWAN.

Mr. Robieson, Chief Clerk, Tourist Department.

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DEPARTMENT OF LANDS.

PUBLIC DOMAINS

OF

NEW ZEALAND:

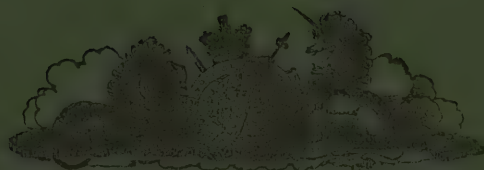
A Synopsis of the Annual Reports of Domain Boards for
the Year ended 31st December, 1908,

WITH

Illustrations from Photographs.

BY

WILLIAM C. KENSINGTON, I.S.O.,
UNDER-SECRETARY.



WELLINGTON.

BY AUTHORITY: JOHN MACKAY, GOVERNMENT PRINTER.

1909.

1909.
NEW ZEALAND.

PUBLIC DOMAINS.

Laid before both Houses of the General Assembly by Command of His Excellency the Governor.

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ANNUAL REPORTS OF DOMAIN BOARDS.

The UNDER-SECRETARY FOR LANDS to the Right Hon. the MINISTER OF LANDS.

SIR,—

Department of Lands, Wellington, 3rd September, 1909.

I have the honour to transmit herewith a synopsis of the Annual Report of Domain Boards for the year ended 31st December, 1908.

The reports show that steady progress is being made with the improvement of these important reserves, and that, generally speaking, they are being efficiently administered in the public interest.

At the close of the year under review there were 457 domains in the Dominion, apart from recreation reserves which are not subject to Part II of "The Public Reserves and Domains Act, 1908." The following table shows at a glance the number in each Land District and the total area :—

Land District.							Number of Domains.	Area.		
								A.	R.	P.
Auckland	..	..	..	..	..	..	122	18,683	0	6·8
Hawke's Bay	..	..	..	..	..	..	31	939	0	24
Taranaki	..	..	..	..	..	..	34	1,393	0	23·6
Wellington	..	..	..	..	..	..	61	*37,832	0	27·6
Nelson ..	..	..	..	..	..	..	15	697	0	6·8
Marlborough	..	..	..	..	..	..	10	753	0	1
Westland	..	..	..	..	..	..	9	329	3	36
Canterbury	..	..	..	..	..	..	96	6,697	2	39
Otago ..	..	..	..	..	..	..	54	6,788	1	27·1
Southland	..	..	..	..	..	..	25	1,149	0	27
Grand totals	..	..	..	..	..	..	457	75,262	3	18·9

* Includes 33,000 acres set aside as a domain under section 9 of "The Wanganui River Trust Act, 1891."

A number of Domain Boards, especially those controlling small areas in localities remote from settlement, have considerable difficulty in obtaining funds with which to improve the lands under their control, while others with larger areas derive a revenue in grazing fees which meets all requirements.

It is somewhat difficult to obtain information concerning a few of the domains, and, with regard to these, I have to report that the Boards intrusted with the administration of the following domains have not yet supplied reports for the past year :—

AUCKLAND LAND DISTRICT.

Titirangi.—Section No. 1, Titirangi Parish. Area, 23 acres. (Board appointed 25th August, 1908.)

HAWKE'S BAY LAND DISTRICT.

Kumeroa.—Section No. 1, Block V, Town of Kumeroa. Area, 10 acres.

TARANAKI LAND DISTRICT.

Rahotu.—Sections Nos. 45 and 105, Block I, Opunake Survey District. Area, 48 acres 2 roods 11 perches.

Waitara.—Block No. 115, Town of Waitara. Area, 15 acres.

Warea.—Section No. 71, Block VIII, Cape Survey District. Area, 26 acres.

WELLINGTON LAND DISTRICT.

Parkville.—Sections Nos. 182, 183, and 185, Suburbs of Parkville. Area, 36 acres 1 rood.

Utiku.—Sections Nos. 4 and 5, Block I, Potaka Township. Area, 5 acres and 11 perches.

WESTLAND LAND DISTRICT.

Nelson Creek.—Section No. 25, Block VIII, Mawheranui Survey District. Area, 49 acres 3 roods 18 perches.

CANTERBURY LAND DISTRICT.

Opawa.—Sections Nos. 155 to 177, Town of Opawa. Area, 7 acres 1 rood 18 perches.

Port Robinson.—Reserves Nos. 3151, 3159, and 3160, Block XI, Cheviot Survey District. Area, 113 acres 1 rood.

In order to maintain the full strength of the Boards 144 appointments were made during the year by His Excellency the Governor and gazetted, and twenty-six local authorities were appointed to be Domain Boards.

I am, &c.,

WILLIAM C. KENSINGTON,
Under-Secretary for Lands.

AUCKLAND LAND DISTRICT.

ARATAPU DOMAIN.

Section No. 42, Kopuru Parish. Area, 44 acres 1 rood 35 perches.

Nil report furnished.

ARAWA PARK DOMAIN.

Section No. 23, Rotorua Rural Sections. Area, 46 acres 3 roods 17 perches.

Work done during year: Three football-grounds previously laid down reploughed, levelled, sown in grass, and rolled; a mile racing-track laid down, portion of the domain fenced off for horses and vehicles, trees and scrub cut, and fences and grandstand repaired. Some of these improvements have been effected by the Rotorua Jockey Club.

AUCKLAND DOMAIN.

Situated in Rangitoto Survey District. Area, 236 acres 1 rood.

Work done during year: One mile of tracks opened, four rustic bridges constructed, and twenty rustic seats provided. The formation of six tennis-courts and ornamental ponds is in progress. Improvements now on domain: Extensive plantations, boundary-fences, iron fences, and stone wall surrounding the cricket-ground, pavilion, Park Superintendent's house, gardener's cottage, caretaker's lodge, and a propagating-house. Used for grazing, picnics, cricket, athletic purposes, and general recreation.

AVONDALE DOMAIN.

Section No. 361, Waikomiti Parish. Area, 38 acres 2 roods.

Work done during year: Six acres cleared of scrub, fences repaired, and track formed from beach into domain. Improvements now on domain: Fences, trees, and 6 acres grassing. Used for picnics and camping.

AWHITU DOMAIN.

Section No. 58c, Awhitu Parish. Area, 8 acres 3 roods 30 perches.

Leased on improvement conditions. Improvements now on domain: Thirty-one chains fencing and grassing. Used for picnics.

BIRKENHEAD DOMAIN.

Section No. 122, Takapuna Parish. Area, 112 acres 2 roods.

Six acres leased for grazing. Improvements now on domain: Fences and plantations.

BUFFALO DOMAIN.

Sections Nos. 31 and 32, Village of Buffalo. Area, 20 acres 1 rood 39 perches.

Work done during year: Substantial fence erected on three sides of the domain. Improvements now on domain: Fences, eleagnus hedge, and gates. Used for cricket, football, and picnics. Proposed operations for ensuing year: Completing fencing of domain; after the domain has been securely fenced, the Board proposes to eradicate noxious weeds and prepare a scheme for the laying-out of the grounds. A never-failing stream flows through the area, and there is also a swamp, which could easily be converted into a pond of 2 acres.

CAMBRIDGE DOMAIN.

Sections Nos. 576, 359, 360, 361, 361A, 367, 581, 578, 579, 363, 363A, 364, 365, 366, 368, 370, Town of Cambridge East, and the Cambridge East Town Belt. Area, 484 acres 1 rood 7 perches.

During the year numerous improvements have been made to the Lake Te Koutu grounds. Two tennis-courts were formed at the back of the rosary; the land on the top level was ploughed and cultivated, and the land on the lower level is being similarly treated. A number of native trees from the bush were planted in the grounds, and are thriving well. A number of seats were donated to the Board, and these have been fastened down to concrete blocks. Improvements now on domain: Band rotunda, bowling-green, tennis-courts, pavilion, trees, flower-beds, walks, and fences. The rotunda and walks are lighted with gas. Used for bowls, tennis, band concerts, and general recreation; also as a promenade. Proposed operations for ensuing year: Eradicating noxious weeds, sowing down the culti-

vated area in grass, planting shrubs and trees, and general maintenance. The lake is frequented by a number of English mallard wild-ducks which were presented to the Board.

CASNELL ISLAND DOMAIN.

Section No. 196, Mahurangi Parish. Area, 16 acres 3 roods.

Used for camping and picnics. Arrangements have been made to lease the domain.

DEVONPORT DOMAIN.

Allotments Nos. 36, 37, and 39 of Section No. 2, and Mount Victoria Reserve, Takapuna Parish. Area, 41 acres 2 roods 36 perches.

Work done during year : Cricket-pitches weeded, top-dressed, levelled, and rolled ; football-ground top-dressed and rolled, and a new fence erected on the southern side ; tennis-ground extended, weeded, top-dressed, and rolled, and a new fence erected. Bowling-green and croquet-lawns weeded, top-dressed, and rolled, and Mount Victoria cleared of noxious weeds and kept in order. Improvements now on domain : Fences, drains, pavilions, plantations, seats, and conveniences. Used for cricket, bowls, football, tennis, croquet, and sports. From Mount Victoria a beautiful view of Auckland and surroundings is obtained. The mount is much frequented by the public. Proposed operations for ensuing year : Top-dressing and levelling cricket-ground, and general maintenance.

DRURY DOMAIN.

Allotment No. 85 of Section 8, Village of Drury. Area, 3 acres and 32 perches.

Leased on improvement conditions.

EASTERN MAHURANGI DOMAIN.

Section No. 176, Parish of Mahurangi. Area, 108 acres and 15 perches.

Nil report furnished.

EAST TAMAKI DOMAIN.

Sections Nos. 140 and 40, Pakuranga Parish. Area, 18 acres 1 rood 35 perches.

Work done during year : Noxious weeds eradicated, trees planted, and dam strengthened. Improvements now on domain : Fences, plantations, and dam. Used for picnics and grazing. Proposed operations for ensuing year : Ploughing, levelling, and sowing down an area in grass, planting trees, eradicating noxious weeds, preparing a tennis-court, and general improvements.

EPSOM DOMAIN.

Allotments Nos. 180, 180A, and 182, of Section No. 10, Suburbs of Auckland. Area, 19 acres 1 rood 5 perches.

Leased.

EPSOM AND MOUNT EDEN DOMAIN.

Part of Allotment No. 46, Allotment No. 49, and part of Allotment No. 48, of Section No. 6, Suburbs of Auckland. Area, 29 acres 3 roods 16 perches.

Leased.

GATE PA DOMAIN.

Sections Nos. 41, 41A, 42, and part 13, Suburbs of Tauranga. Area, 12 acres 1 rood 37 perches.

Leased on improvement conditions. The domain is fenced, and the greater portion is in grass. Not used by the public.

GREY LYNN DOMAIN.

Allotment No. 21 of Section No. 9, Suburbs of Auckland. Area, 22 acres.

No improvements effected during the year.

HAMILTON DOMAIN.

Sections Nos. 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 156, 157, 158, 159, 160, 161, 162, 163, 164, 173, 174, 175, 176, 177, 178, 180, 181, 182, 183, 405A, 209, 210, 214, 215, 244, 245, 247, 248, 249, 281, 282, 321, 322, 323, 324A, 325A, 326, 331, 332, 333, 334, 337, 338, 339, 340, 343, 344, 345, 346, 349, 350, 351, 352, 355, 356, 357, 358, 359, 360, 361, 362, 362A, 363, 363A, 365, 366, 367, 367A, 368, 368A, 369, 370, 371, 372, 372A, 373, 373A, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, and 410, Town of Hamilton East, and 168 acres, Hamilton East Town Belt. Also Sections Nos. 28, 129, 140, 142, 399A, 146, 147, 149, 170, 171, 201, 202, 203, 212, 409, 457, 458, 194, 195, 197, 198, 206, 207, 209, 213, 214, 215, 216, 217, 218, 225, 226, 227, 228, 251, 454, 320, 324, 325, 335, 337, 350, 352, 369, 376A, 453A, 180 acres 2 roods 24 perches, Hamilton West Town Belt, and Section No. 372, Parish of Te Rapa, Hamilton Lake, 141 acres. Area, 663 acres 2 roods.

Work done during year : Seddon Park ploughed and cleared, front portion laid down in grass, and back portion cropped and reploughed for cropping and laying down in grass ; lake reserve cleared in readiness for ploughing and grassing ; shrubs and hedges planted in Seddon and Steele Parks, and noxious weeds eradicated. Improvements now on domain : Fences, drains, trees, shrubs, and buildings. Used for sports and picnics. Proposed operations for ensuing year : Cropping and laying down in grass the Lake Reserve and Seddon Park, and general improvements.



A CORNER IN BUFFALO DOMAIN.

[D. P. Parker, Photo.]



LOWER CASCADE IN BUFFALO DOMAIN.

To face page 6.

[D. P. Parker, Photo]

C.—10.



KATIKATI DOMAIN.

[A. Diggelman, Photo]

HELENSVILLE DOMAIN.

Section No. 10, Block XIV, Kaipara Survey District. Area, 38 acres 2 roods 21 perches.

Work done during year: New bath-house erected and furnished, swimming-bath formed, drains put in, drive made, and trees planted. Used for bathing and as a pleasure resort. Proposed operations for ensuing year: Carrying out boring operations and connecting pipes, forming drains, and general improvements.

HOTE0 DOMAIN.

Section No. 34B, Block XII, Pakiri Survey District. Area, 16 acres 1 rood 5 perches.

Nil report furnished.

HOWICK DOMAIN.

Suburban Sections Nos. 141 to 148, Town of Howick. Area, 8 acres.

Work done during year: Hedges trimmed, draining extended, about 2 acres levelled and sown in grass, pavilions and gates painted, and two boat-swings erected. Improvements now on domain: Thirty-six chains fences, drains, pavilions, gates, two boat-swings, two tennis-courts, cricket-pitch, 4 acres levelling, and conveniences. Used for picnics, cricket, football, tennis, sports, and grazing. Proposed operations for ensuing year: Completing draining, forming asphalt tennis-court, planting trees, and trimming hedges.

KAIWAKA DOMAIN.

Section No. 125, Kaiwaka Parish. Area, 6 acres 1 rood 13 perches.

This domain is under the control of the Commissioner of Crown Lands, Auckland. It contains some fine native bush which is being protected. A portion is in grass. Occasionally visited by picnic parties.

KATIKATI DOMAIN.

Sections Nos. 25 and 26, Katikati Parish. Area, 185 acres 2 roods.

Work done during year: Well sunk and pump inserted, old well cleaned out, pipe driven into hill and pump connected to increase water-supply, track 6 ft. wide cut to connect the main camping-ground with Brown's Bay, and the ford over the estuary staked to indicate the depth of water. These works were supervised by the Waihi Borough Council Engineer, whose services were granted gratuitously. Improvements now on domain: Fences, wells, pumps, and track. Used as a camping-ground and for picnics and regattas. Proposed operations for ensuing year: Clearing gorse and manuka scrub, with a view to cultivating and sowing down the domain in grass, planting ornamental and shelter trees, and forming small boulder wharf for boats.

KAURI DOMAIN.

Part of Lot No. 23 of Section No. 2, Block XI, Waipoua Survey District. Area, 41 acres 3 roods.

This domain is under the control of the Commissioner of Crown Lands, Auckland. Work done during year: Fences repaired. Improvements now on domain: Fences and grassing. Used for the preservation of the kauri-pine. Proposed operations for ensuing year: Repairing fences.

KAWAKAWA DOMAIN.

Section No. 47, Ruapekapeka Parish. Area, 14 acres 3 roods.

Work done during year: Domain cleared of noxious weeds and sown in grass, and concrete approach formed. Improvements now on domain: Fences, trees, concrete approach, and clearing and grassing. Leased for grazing and cropping; also used for sports. Proposed operations for ensuing year: Cultivating half of the area, planting trees, and renewing fences.

KAWHIA DOMAIN.

Section No. 1, Block XI, Town of Kawhia. Area, 4 acres and 37 perches.

The greater portion of this domain is swamp.

KIHIKIHI DOMAIN.

Sections Nos. 220 to 225, 228 to 241, and 359 to 380, Town of Kihikihi. Area, 42 acres.

Work done during year: Grandstand repaired and altered. Improvements now on domain: One hundred and thirty chains fencing, grandstand, and plantations. Used for football, cricket, polo, picnics, and sports. Proposed operations for ensuing year: Making additions to grandstand and outbuildings, and extending fences.

KOHUKOHU DOMAIN.

Part of the Foreshore of Hokianga River, situated in Block X, Mangamuka Survey District. Area, 11 acres 1 rood 28 perches.

Improvements now on domain: Retaining-wall and fence, refreshment-booth, dressing-room, and conveniences. The reclamation of the area and these improvements were effected before the Domain Board was appointed. Used for shows, sports, picnics, football, and cricket. Proposed operations for ensuing year: Raising the level of the ground, forming drains, and improving buildings and fences.

KOPURU DOMAIN.

Section No. 141, Kopuru Parish. Area, 1,077 acres.

Nil report furnished.

KOPURU TOWN DOMAIN.

Section No. 142, Kopuru Parish. Area, 6 acres and 25 perches.

Nil report furnished.

KUAOTUNU DOMAIN.

Section No. 6, Block II, Otama Survey District. Area, 11 acres 3 roods 30 perches.

Work done during year : Portion of the domain cultivated for the purpose of levelling and sowing down in grass, 6 chains drains dug, of which 3 chains were fascined and filled, and gate erected. Improvements now on domain : Plantations, draining, fencing, levelling, and gates. Not used at present, while undergoing improvements. Proposed operations for ensuing year : Planting trees, constructing drains, sowing grass, and general improvements.

LEAMINGTON DOMAIN.

Sections Nos. 53, Part 54 and 56 to 94, Town Belt of Cambridge West, and 569, Town of Cambridge West. Area, 321 acres 1 rood 4 perches.

Work done during year : Fences repaired, hedges trimmed, noxious weeds eradicated, and rams and tanks for baths erected. Improvements now on domain : Ornamental and shelter trees, 200 chains fences, water-rams, tanks, and 3 acres plantation. Used for cricket, tennis, picnics, and general recreation ; a portion is leased for grazing. Proposed operations for ensuing year : Planting trees, erecting and repairing fences, and general maintenance.

LICHFIELD DOMAIN.

Section No. 26, Block XV, Patetere North Survey District. Area, 10 acres 3 roods 8 perches.

This domain is under the control of the Commissioner of Crown Lands, Auckland. It is all in good grass, and is in a healthy locality, about 800 ft. above sea-level.

MACKAYTOWN DOMAIN.

Sections Nos. 1 and 2, Block VII, Town of Mackaytown. Area, 15 acres 1 rood 14 perches.

Work done during year : Portion of the domain levelled, sown in grass, drained, and fenced. Improvements now on domain : Fences, drains, and small wooden building, out of repair. Used for sports, football, hockey, cricket, and picnics. Proposed operations for ensuing year : Levelling and resowing lower portion of domain.

MAHURANGI DOMAIN.

Section No. 96B, Mahurangi Parish. Area, 63 acres 3 roods 38 perches.

Used as a rifle range.

MAMAKU DOMAIN.

Sections Nos. 1 to 5, Block XIV ; 1, Block XV ; 1 to 5, Block XVII ; and 3 to 7, Block XVIII, Village of Mamaku. Area, 25 acres 1 rood 18 perches.

Work done during year : Entrance-gates erected and general maintenance. Improvements now on domain : Fencing and grassing. Used for picnics, sports, and general recreation. Proposed operations for ensuing year : Ploughing, sowing grass, and tree-planting.

MANGAPIKO DOMAIN.

Sections Nos. 74 and 87, Mangapiko Parish. Area, 113 acres.

Work done during year : Boundary-fences renewed and noxious weeds cleared. Improvements now on domain : Fencing and shelter-trees. Used for grazing and races. Proposed operations for ensuing year : Planting hedge on road frontage.

MANGERE DOMAIN.

Section No. 200, Manurewa Parish. Area, 95 acres.

Work done during year : Ornamental trees procured and planted, other trees planted along drive to form an avenue, plantation made, fences repaired, and noxious weeds eradicated. Improvements now on domain : Fences, plantations, drive, and water-supply. Used for picnics and general recreation. Proposed operations for ensuing year : Continuing drive to top of hill, extending plantations, and tarring and sanding tennis-court.

MANGONUI DOMAIN.

Allotment No. 265, Town of Mangonui. Area, 5 acres 3 roods 33 perches.

No improvements effected during the year. The domain consists of mostly very steep and broken land.

MATAMATA DOMAIN.

Block XII, Matamata Township. Area, 9 acres 3 roods 4 perches.

Work done during year : Eighty shelter-trees planted and fenced off. Arrangements are being made to have a well sunk and pump erected. Improvements now on domain : Fifty chains fences and eighty shelter-trees. Used for cricket, football, tennis, picnics, and sports. Proposed operations for ensuing year : Planting shelter-trees.



MOUNT WELLINGTON DOMAIN: THE CRATER FROM THE TOP OF THE MOUNTAIN.



PANMURE, FROM MOUNT WELLINGTON DOMAIN.

To face page 8.]

MERCER DOMAIN.

Sections Nos. 136 and 139, Koheroa Parish. Area, 105 acres 2 roods.

Work done during year: Fences and gates damaged by stock repaired, scrub and blackberry cleared, drains constructed, and levelling done. Improvements now on domain: Fencing, draining, and sports ground. Used for picnics and athletic sports; also for grazing.

MOUNT ALBERT DOMAIN.

Part of Allotment No. 100, Titirangi Parish. Area, 12 acres 2 roods 12 perches.

Work done during year: Notice-board erected, enclosure kept in order, shrubs planted, and exterior of pavilion painted and interior kalsomined. Improvements now on domain: Fences, shrubs, trees, pavilion, flagstaff, water-supply, drinking-trough for cattle, levelling, and grassing. Used for cricket, hockey, picnics, and grazing.

MOUNT EDEN DOMAIN.

Allotments Nos. 1A of Section No. 6 and 68A of Section No. 10, Suburbs of Auckland. Area, 63 acres 2 roods 38 perches.

Work done during year: Plantations fenced with wire netting, carriage-drive metalled, boundary-fences made secure, and the reserve placed in excellent order. A building in red brick and timber has been erected at the principal entrance to the domain by the Borough Council. This building is used by visitors to the mountain as a waiting-shed for trams. Improvements now on domain: Building fitted with gas, carriage-drive, plantations, and fences. Used for general recreation. Proposed operations for ensuing year: General maintenance.

MOUNT HOBSON DOMAIN.

Allotment No. 2A of Section No. 11, Suburbs of Auckland. Area, 23 acres 1 rood.

Work done during year: Paths and water-channels kept in order, shrubs and trees attended to, and noxious weeds removed. Improvements now on domain: Plantations, paths, gates, seats, and fences. Used as a pleasure-resort. Proposed operations for ensuing year: Keeping paths in order, attending to trees and shrubs, and repairing fences.

MOUNT MAUNGANUI DOMAIN.

Section No. 1, Block VI, Tauranga Survey District, and Motuotau and Moturiki Islands. Area, 203 acres 3 roods 27 perches.

Work done during year: Tracks repaired and maintained; steamer-pier repaired, painted, and tarred; 8 chains fencing around trees removed; three clumps of smaller trees fenced in; two enclosures of about $\frac{1}{4}$ acre each formed and planted with ornamental trees; and mountain track extended. Improvements now on domain: Three plantations; two piers, one wood and iron, the other stone and concrete; concrete tank, spring; and paths from wharves to beach and to top of hill. Used as a holiday resort and for sports, regattas, picnics, and camps. Proposed operations for ensuing year: Developing new water-springs, conserving supply of water, and general maintenance.

MOUNT RICHMOND DOMAIN.

Allotment No. 60 of Section No. 12, Waitemata Parish. Area, 33 acres.

Improvements now on domain: Fences, small plantation, and grassing. Used as a pleasure resort.

MOUNT ROSKILL DOMAIN.

Allotments Nos. 85B and 85F of Section No. 10, Suburbs of Auckland. Area, 11 acres 2 roods 22 perches.

Improvements now on domain: Boundary-fences. Used for grazing.

MOUNT SMART DOMAIN.

Allotment No. 22 of Section No. 17, Suburbs of Auckland. Area, 32 acres 2 roods 22 perches.

Improvements now on domain: Fences. Used for grazing. The supply of scoria for the district is obtained from the area.

MOUNT ST. JOHN DOMAIN.

Allotment No. 12A of Section No. 11, Suburbs of Auckland. Area, 8 acres 2 roods 21 perches.

Work done during year: Fences erected and trees planted. Improvements now on domain: Fences and trees. Used for grazing and a public resort.

MOUNT WELLINGTON DOMAIN.

Part of Section No. 56, Waitemata Parish, and Allotments Nos. 51, 51A, 55, and part of 56 of Section No. 1 of the Small Lots near Pannure Village, and Part of Allotment 64 of Section No. 12, Suburbs of Auckland. Area, 68 acres 3 roods 6-8 perches.

Work done during year: Fences repaired and noxious weeds eradicated. Improvements now on domain: Fences, plantations, carriage-road to top of mountain, well, cistern, windmill, pump, pipes, and trough. Used by sightseers and for picnics and general recreation; also for grazing. Proposed operations for ensuing year: Repairing and erecting fences, planting trees, and eradicating noxious weeds.

NAUMAI DOMAIN.

Section No. 213, Parish of Tauhoa. Area, 33 acres 1 rood.

Nil report furnished.

NEWMARKET DOMAIN.

Allotments Nos. 32 and 33 of Section No. 4, Suburbs of Auckland. Area, 3 acres 2 roods.

Nil report furnished.

NGAROTO DOMAIN.

Section No. 176A, Ngaroto Parish. Area, 6 acres 1 rood.

Leased on improvement conditions. The land has been cleared and broken up, and is in crop.

NGARUAWAHIA DOMAIN.

Sections Nos. 123, Horotiu Parish, 101, Suburbs of Newcastle, and 607 and 663A, Town of Ngaruawahia. Area, 131 acres 1 rood 28 perches.

Work done during year: Buildings on racecourse painted. Improvements now on domain: Buildings and fences. Used principally for races.

NGATIKOI DOMAIN.

Section No. 15, Block XVI, Ohinemuri Survey District. Area, 133 acres 3 roods.

Improvements now on domain: Fences, trees, and barn erected by lessee. Not used by the public; leased for grazing. Proposed operations for ensuing year: Clearing scrub and sowing grass.

NIKAU DOMAIN.

Section No. M. 129, Oruawharo Parish. Area, 22 acres.

This domain is under the control of the Commissioner of Crown Lands, Auckland. It has hitherto been used as a school-site, but the building is now being removed. There are a few pine-trees on the area.

NORTHCOTE DOMAIN.

Sections Nos. 1 to 10 and 68, Town of Northcote. Area, 3 acres 1 rood 29 perches.

During the year funds were raised for the erection of a flagstaff on a point commanding a magnificent view of Auckland Harbour, and maintenance-works carried out. Improvements now on domain: Fences and trees. Used for general recreation and as a vantage-ground on regatta-days.

OHINEWAI DOMAIN.

Section No. 49, Taupiri Parish. Area, 64 acres 2 roods 30 perches.

No improvements effected during the year. Improvements now on domain: Three acres plantation, ploughing, and clearing. Used for picnics. Proposed operations for ensuing year: Clearing and fencing.

ONEHUNGA DOMAIN.

Allotment No. 14 of Section No. 36, Town of Onehunga. Area, 5 acres 1 rood 31 perches.

Improvements now on domain: Paths, plantation, and hedges. Used for picnics.

ONE-TREE HILL DOMAIN.

Allotments Nos. 54 and part of 11 of Section 12, Suburbs of Auckland. Area, 121 acres and 28 perches.

Work done during year: Drive around summit of hill completed; macrocarpa hedge topped; road near summit cross-drained and banks turfed; protecting fence erected around new drive; evergreen-oak seeds sown; pohutukawa-trees planted in plantation recently burnt; swings, lavatories, and notice-boards erected; roads metalled, and general maintenance. Improvements now on domain: Fences, shrubberies, walks, ornamental trees, caretaker's residence, lavatories, golf-links, swings, seats, lawns, and roads. Used for sports, golf, and picnics. The summit of the hill commands a magnificent view of the surrounding country. Proposed operations for ensuing year: Erecting a new wood-and-iron fence along the main frontage of the domain, for which the banks have already been trimmed down, forming an entrance to the caves on the domain, and general improvements.

OPAHEKE DOMAIN.

Allotment No. 132 of Section No. 2, Opaheke Parish. Area, 16 acres 2 roods 6 perches.

Leased. Improvements now on domain: Fencing and grassing.

OPOTIKI DOMAIN.

Allotments Nos. 12, 13, and 28, 168 to 177, and 207 to 216, of Section No. 1; and 84, 85, 86, 130, 131, and 132 of Section No. 2, Town of Opotiki. Area, 11 acres 3 roods.

Work done during year: General maintenance. Improvements now on domain: Fences, ornamental trees, and pavilion. Used for cricket, picnics, and sports. Proposed operations for ensuing year: Constructing underground drains, improving fences and seating-accommodation, and planting trees.

OPOTIKI AND WAIOEKA DOMAIN.

Sections Nos. 82, 83, 84, 85, and 333, Waioeka Parish. Area, 299 acres 1 rood.

Work done during year: Twelve chains of fencing erected, new drain made and all old ones reopened, ornamental trees planted, and general maintenance. Improvements now on domain: Fences, hedges, open and underground drains, grandstand, ladies' room, judge's box, saddling-paddock, 10 acres planted with ornamental and native trees, racecourse (partly fenced with handrails), willow protective works, and $1\frac{1}{2}$ acres plantation. Used for races, sports, and picnics. Proposed operations for ensuing year: Completing draining and fencing, painting grandstand and buildings, and extending plantations.

ORUAMO DOMAIN.

Section No. 218, Takapuna Parish. Area, 5 acres 2 roods 7 perches.

Improvements now on domain: Fencing, grassing, and ploughing. The domain is under the special care of the member for the Birkenhead Riding. Used for school picnics and sports.

ORUAWHARO DOMAIN.

Section No. 40A, Parish of Oruawharo. Area, 54 acres.

Nil report furnished.

OTAHUHU DOMAIN.

Suburban Section No. 19, Town of Otahuhu. Area, 5 acres.

Work done during year: Domain ploughed and sown down in grass, and fence erected. Improvements now on domain: Fences, hedges, and trees. Leased.

OTAU DOMAIN.

Allotments Nos. 14, 31 to 36, and 41 to 43 of Section No. 1, and 26, 28, 31, and 32 of Section No. 2, of the Village of Otau. Area, 2 acres and 15 perches.

This domain is under the control of the Commissioner of Crown Lands, Auckland. Not used. Endeavour has been made to lease the area, but without success.

OTOROHANGA DOMAIN.

Section No. 8, Block IV, Orahiri Survey District. Area, 37 acres 3 roods 23 perches.

Nil report furnished.

PAEROA DOMAIN.

Sections Nos. 3 to 8 and 11 and 12, Block IX; 2 to 11, Block X; 1 and 2, Block XI; Block XIV; 8 to 12, Block XV; 1 to 3, Block XXI; and Block XXII; Town of Paeroa. Area, 21 acres 1 rood 4 perches.

Work done during year: Trees and shrubs planted, fencing and entrance-gate erected, asphalt tennis-court renewed, and general maintenance. Improvements now on domain: About 112 chains fences, three entrance-gates, bowling-green, five plantations of shrubs with protecting fences, croquet-lawn, two asphalt tennis-courts, football, cricket, and hockey grounds, band-stand, ornamental trees and shrubs, eleagnus hedge, bowling and tennis pavilions, cottage, and conveniences. Used for tennis, croquet, football, hockey, bowls, and general recreation. Proposed operations for ensuing year: Filling in old watercourses and lagoons, and renewing asphalt tennis-court.

PAHI DOMAIN.

Section No. 102, Suburbs of Pahi. Area, 7 acres 2 roods 8 perches.

Improvements now on domain: Fences and trees. Used for sports.

PAIAKA DOMAIN.

Parts of Sections Nos. 180, 181, and 182, Waipa Parish. Area, 22 acres 3 roods 8 perches.

This domain consists of fine native bush.

PAKIRI DOMAIN.

Section No. 28A, Parish of Pakiri. Area, 8 acres.

Leased on improvement conditions.

PAKURANGA DOMAIN.

Allotments Nos. 17 and 18 of Section No. 5 of Small Farms near Howick, Otahuhu Survey District. Area, 22 acres 3 roods 30 perches.

Work done during year: About 10 chains fences, stiles, and pavilion erected, and thistles cleared. Improvements now on domain: Fences, plantations, gates, stiles, well, cricket-ground, and pavilion. Used for picnics, cricket, and sports.

PANMURE DOMAIN.

Allotments Nos. 45, 55, 56, 63, 64, 77, and 78 of Section No. 2, and 54, 55, and 56 of Section No. 3, Panmure Township. Area, 8 acres and 8 perches.

Improvements now on domain: Stone wall on three sides, two stiles, and gate. Used for sports and football.

PAREMOREMO DOMAIN.

Sections Nos. 76A and 94A, Paremoremo Parish. Area, 6 acres 1 rood 1 perch.

This domain is situated in Albany Village, and is unimproved and unoccupied.

PARNELL DOMAIN.

Allotments Nos. 89 of Section No. 1, 34 of Section No. 4, and 5A of Section No. 14, Suburbs of Auckland. Area, 8 acres 1 rood 38 perches.

Work done during year: Shrubs planted and fences attended to.

PIRONGIA DOMAIN.

Allotments Nos. 510, 511, 512, and 513, Town of Pirongia East, Town Belt of Pirongia East, and Town Belt of Pirongia West. Area, 450 acres 3 roods 8 perches.

One hundred and forty-nine acres leased on improvement conditions. Improvements now on domain: Fences and grassing. Used for grazing.

PLUMER DOMAIN.

Sections Nos. 11 and 12, Plumer Hamlet, Parish of Waipareira. Area, 6 acres 2 roods 31 perches.

Portion of this domain is in grass, the remainder in native bush. Used for picnics. Proposed operations for ensuing year: Erecting fences, eradicating noxious weeds, and clearing.

POKENO DOMAIN.

Allotment No. 138 of Section No. 1, Pokeno Settlement, Opaheke Survey District, and Section No. 154, Maungatawhiri Parish. Area, 132 acres and 4 perches.

This domain is under the control of the Commissioner of Crown Lands, Auckland. Noxious weeds have been kept down. Improvements now on domain: Grassing. Leased. Proposed operations for ensuing year: Keeping noxious weeds in check.

PUHOI DOMAIN.

Section No. 130, Parish of Puhoi. Area, 3 acres.

Nil report furnished.

PUKAPUKA DOMAIN.

Section No. 82A, Parish of Mahurangi. Area, 27 acres.

Nil report furnished.

PUNIU DOMAIN (PART OF).

Part of Section No. 223, Parish of Puniu. Area, 7 acres and 32 perches.

This portion of Puniu Domain is under the control of the Commissioner of Crown Lands, Auckland. Improvements now on domain: Fences (out of repair), and grassing. Not used. Proposed operations for ensuing year: Eradicating noxious weeds.

PUNIU DOMAIN (PART OF).

Section No. 54A, and Allotments Nos. 6, and parts of 5, 7, and 8 of Section No. 236, Mangapiko Parish. Area, 15 acres and 20 perches.

Work done during year: Flower-beds laid out, paths formed and covered with sand, ornamental trees planted, road frontages cleared of noxious weeds, and general maintenance. Improvements now on domain: Fences, plantations, and pavilion. Used for athletic sports and general recreation. Eight acres leased. Proposed operations for ensuing year: Erecting seats under shelter-trees, erecting new entrance-gates, replacing dead shrubs, and general maintenance. The Board keeps in view the extension of the frontage of the Lake Ngaroto Reserve to the new water-line. A survey of the reclaimed land has been made.

RANGITOTO ISLAND DOMAIN.

Area, 5,698 acres 2 roods of Rangitoto Island, situated in Rangitoto Survey District.

Improvements now on domain: Wharf, three concrete tanks, two shelter-sheds, seats, fireplaces, and a well-graded path to summit of mountain. Used for picnics; also visited by tourists. The Devonport Ferry Company runs steamers to the domain twice weekly and on all holidays, and pays the Domain Board 1d. on each ticket sold. The Board's receipts are occasionally increased by the sale of scoria and blue metal. Proposed operations for ensuing year: Clearing path, emptying and cleaning tanks, and extending and improving track to top of mountain.

RAUPO DOMAIN.

Sections Nos. 58, Block XVI, Tokatoka Survey District, and 1, 2, 15, and 16, Village of Raupo. Area, 37 acres 2 roods 28 perches.

The domain was covered with flax, but this has been destroyed by fire. The Board proposes to lease the area on improvement conditions.

RAWENE DOMAIN.

Allotments Nos. 153 to 166, Town of Rawene. Area, 3 acres and 29 perches.

Work done during year: Ground cleared and stumped. Used for cricket and sports. Proposed operations for ensuing year: Erecting fences. It is also proposed to enlarge the domain by reclamation when legislative authority has been obtained.

ROTORUA DOMAIN.

Section No. 1, Block V, Town of Rotorua. Area, 2 acres 2 roods.

This domain is under the control of the Commissioner of Crown Lands, Auckland. Improvements now on domain: Path and grassing.

TAKAPUNA DOMAIN.

Section No. 250, Takapuna Parish. Area, 180 acres 2 roods.

The value of this domain is prospective. It comprises poor gum land, situated some miles from close settlement, and is used by camping parties. The Takapuna tramways now being constructed will bring it within easier reach of the public.

TANEATUA DOMAIN.

Section No. 11, Block IX, Whakatane Survey District. Area, 10 acres.

Leased on improvement conditions. Work done during year: Lawn-tennis courts fenced in and barberry hedge attended to. Improvements now on domain: Fences, gates, barberry hedge. The high river-bank has been sloped down, and water-holes filled in. Used for football, cricket, tennis, and general recreation. Proposed operations for ensuing year: Planting shelter and ornamental trees.

TANGIHUA DOMAIN.

Section No. 33, Block II, Tangihua Survey District. Area, 65 acres.

Leased for grazing on improvement conditions. Improvements now on domain: Twenty acres grassing, draining, and fencing.

TAUHOA DOMAIN.

Sections Nos. 145, 146, and 148, Tauhoa Parish, and Sections Nos. 2A and 10B, Otamatea Survey District. Area, 111 acres 3 roods 30 perches.

Leased on improvement conditions. Work done during year: Fencing, ploughing, and grassing. Improvements now on domain: Fences, 10 acres ploughing and 20 acres grassing. Used for tennis.

TAUPIRI DOMAIN.

Sections Nos. 78 to 87, Town of Taupiri. Area, 4 acres 2 roods 37 perches.

Used for cricket, tennis, and picnics.

TAUPIRI MOUNTAIN DOMAIN.

Section No. 481, Parish of Taupiri. Area, 162 acres 2 roods.

Ten acres leased.

TAUPO DOMAIN.

Sections Nos. 2 and 4, Block II, Tauhara Survey District, and part of the area in Taupo Township known as Taupo Recreation-ground. Area, 27 acres and 26 perches.

Work done during year: Footpath formed along eastern side of domain, flower-beds, paths, bowling-green and tennis-lawn maintained, water-trough erected and connected with water-pipe and taps. Improvements now on domain: Fences, hedge, well, windmill and piping, three 400-gallon tanks, with stand and toolhouse, tennis and bowling-green, ornamental and shelter trees, flower-beds, seats, and bath-buildings. Used for general recreation, and visited by tourists. Proposed operations for ensuing year: Top-dressing lawn, forming new flower-beds and connecting them with water-supply, and painting and repairing bath-house. During the year a landslip caused considerable damage to the bath-house.

TAURANGA DOMAIN.

Allotments Nos. 273 and 393 of Section No. 1, Town of Tauranga. Area, 15 acres 3 roods 21 perches.

Work done during year: Noxious weeds eradicated, fences kept in order, and flowers and trees planted. Improvements now on domain: Band-rotunda, shed, and pavilion. Used for cricket, golf, football, hockey, and sports. Proposed operations for ensuing year: Trimming hedges, repairing fences, and eradicating noxious weeds.

TAURANGA RACECOURSE DOMAIN.

Sections Nos. 22, 23, 24, and 25, Te Papa Parish. Area, 200 acres.

Work done during year: Fences repaired, race-track put in order, and gorse cleared. Improvements now on domain: Saddling-paddock, grandstand, booth, committee and luncheon rooms, and plantations. Used for races and Volunteer manoeuvres. Leased on improvement conditions. Proposed operations for ensuing year: Repairing buildings, maintaining track, and cultivating trees.

TE AROHA BRIDGE DOMAIN.

Sections Nos. 3, Block XVI; 2, Block XXI; Blocks XXII and XXIII; and Section 2, Block XXIV, Town of Te Aroha. Area, 8 acres and 6 perches.

Work done during year: Fences repaired, entrance-gate erected, and noxious weeds eradicated. Improvements now on domain: Fences and gate. Used for picnics. The Board proposed to have a scheme prepared for the beautification of the domain.

TE AWAMUTU DOMAIN.

Sections Nos. 20, 21, 23, 24, 25, 81, 149, and 150, Town of Te Awamutu. Area, 18 acres 3 roods.

Work done during year: Fences erected, trees planted, and clearing done. Leased on improvement conditions.

TE KUITI DOMAIN.

Sections Nos. 29, 30, and 31, Block III, Otake Survey District. Area, 6 acres 1 rood 38 perches.

Work done during year: Domain ring-fenced, ploughed, and grassed, and football-ground and cricket-pitch laid out. Improvements now on domain: Fencing and draining. Used for football, cricket, and sports.

TE PUKE DOMAIN.

Section No. 50, Block II, Maketu Survey District. Area, 13 acres 3 roods 4 perches.

Work done during year: About 12 acres ploughed and sown with grass and clover, and noxious weeds kept in check. Improvements now on domain: Fences, hedge, and three tennis-courts. Used for sports and Volunteer encampments.

TOKATOKA DOMAIN.

Allotment No. 73, and Sections Nos. 57, 71, 72, 90 to 97, 98 to 100, 109 to 111, 112 to 114, and 116, Town of Tokatoka. Area, 38 acres 2 roods 19 perches.

Work done during year: Fences and gates erected. Used for picnics and scenic purposes.

TOTARA DOMAIN.

Section No. 15, Totara Parish. Area, 4 acres 1 rood 5 perches.

Improvements now on domain: Embankment and drains. Used for sports.

TUAKAU DOMAIN.

Section No. 45, Tuakau Parish. Area, 36 acres 3 roods.

Work done during year: About 15 acres ploughed and resown in grass, hedges trimmed, flower-beds maintained, two garden-seats and a gate and gate-posts at the entrance to flower-garden erected. The erection of new gate-posts for the front gate and a wicket-gate in the place of a turnstile at the side entrance is also in hand, and will be completed during the ensuing year. Improvements now on domain: Fencing, plantations, and pasture. Used for picnics and Volunteer reviews.

TUI PARK DOMAIN.

Section No. 14A, Block IX, Aroha Survey District. Area, 52 acres 1 rood 10 perches.

Used for scenic purposes.

TUPUA DOMAIN.

Section No. 119, Whangarei Parish. Area, 10 acres.

Leased for grazing. Improvements now on domain: Fencing and grassing.

TURANGA DOMAIN.

Wade's Island, Section No. 133, Pukuranga Parish. Area, 26 acres.

Under the control of the Commissioner of Crown Lands, Auckland. The domain is not suited for recreation purposes. It is an island in Turanga Creek, and is occasionally covered by salt water, which prevents the growth of trees and grass. Used occasionally by picnic parties and fishermen. It is proposed to lease the domain during the ensuing year.

URITAWA DOMAIN.

Sections Nos. 15 to 29 and 38 to 42, and portions of closed streets, Town of Waterford, Parish of Tahawai. Area, 5 acres 1 rood 24 perches.

Work done during year: Fences, gates, shelter-shed, dressing-rooms, and tank erected; land cleared, ploughed, levelled, and sown with grass and clover; trees planted; flagstaff and appendages placed in position; and cricket-pitch formed. Improvements now on domain: Fences, gates, shelter-shed, dressing-rooms, tennis-court, trees, and grassing. Used for sports, picnics, Volunteer parades, tennis, cricket, and football. Proposed operations for ensuing year: Making fences sheep-proof to protect trees, and procuring flags.

WAHAROA DOMAIN.

Sections Nos. 26 and 27, Waharoa Township. Area, 10 acres.

A contract has been let for the stumping, clearing, and ploughing of the domain, and the work is now in progress. When the contract has been completed, the erection of fencing will be commenced. The land will be allowed to lie in fallow until next cropping season.

WAIHI DOMAIN.

Section No. 4, Block IV, Aroha Survey District. Area, 120 acres.

Leased to the Waihi Jockey Club. Work done during year: Training-track formed and shelter-trees planted. Improvements now on domain: Fences, racecourse, grandstand, hedge, and conveniences. Used for races.

WAIHOU DOMAIN.

Sections Nos. 113, Block IX, and 8, Block XI, Aroha Survey District. Area, 107 acres 1 rood.

Leased. Improvements now on domain: Fences, drains, and plantations. Used for agricultural and pastoral shows, football, and cricket.

WAIKIEKIE DOMAIN.

Section No. 49, Waikiekie Parish. Area, 60 acres.

This domain is under the control of the Commissioner of Crown Lands, Auckland. It comprises undulating land covered with mixed bush; no level land suitable for games. It is proposed to lease the area.

WAIKINO DOMAIN.

Section No. 51, Waikino Township, Block XIV, Ohinemuri Survey District. Area, 12 acres and 30 perches.

Work done during year: Two and a half acres levelled for football and cricket, and roof of shed repaired. Improvements now on domain: Plantations, cricket-pitch, dressing-rooms, fences, hedges, gates, and grassing. Used for sports, football, cricket, hockey, and band concerts. Proposed operations for ensuing year: Forming, levelling, rolling, and grassing 2½ acres; forming bicycle-track; erecting grandstand; and planting trees.

WAIPU NORTH DOMAIN.

Section No. 195A, Parish of Waipu. Area, 21 acres.

Work done during year: Three acres cleared and grassed. Improvements now on domain: Grassing. Leased on improvement conditions.

WAITAKEREI DOMAIN.

Sections Nos. 16, 18, 19, E. 64, 65, S. 68, S.E. 75, S. 78, S. 79, 110, 111, and S. 112, Karangahape Parish; N. 54, Block V, Waitakerei Survey District; and 163 and 193, Waipareira Parish. Area, 4,732 acres.

Work done during year: Noxious weeds kept down and tracks cleared. The person employed to do this work has also been acting as Ranger.

WAIUKU DOMAIN.

Section No. 73, Waiuku Village. Area, 10 acres.

Work done during year: Pavilion and convenience erected. Improvements now on domain: Fences, drains, gates, plantations, asphalt cricket-pitch, pavilion, and convenience. Used for cricket and football. Proposed operations for ensuing year: General maintenance.

WAIWERA DOMAIN.

Sections Nos. 168, 169, 170, and 171, Waiwera Parish. Area, 12 acres 2 roods 9 perches.

Improvements now on domain: Fencing and ploughing. Used for general recreation. The domain commands a fine view of the sea.

WHAINGAROA DOMAIN.

Sections Nos. 86 and 86A, Waipa Parish, and 139, Whaingaroa Parish. Area, 364 acres and 21 perches.

Improvements now on domain: House of twenty rooms, outbuildings, fences, orchard, plantations, ladies' and men's baths (concrete), and buildings. Used as a health resort.

WHAKATANE DOMAIN.

Sections Nos. 285 and 286, Waimana Parish. Area, 40 acres 2 roods 18 perches.

Work done during year: Boundary-fence between domain and school reserve removed, banks levelled and trees cleared, fence re-erected, and gate removed to more suitable place. Improvements now on domain: Fencing, grassing, levelling, and plantation. Used for cricket, football, tennis, and picnics. Proposed operations for ensuing year: Eradicating noxious weeds, cutting down old hedge and levelling banks, planting trees, and general maintenance.

WHANANAKI DOMAIN.

Section No. 26, Block IX, Opuawhanga Survey District. Area, 28 acres 2 roods 32 perches.

This domain is under the control of the Commissioner of Crown Lands, Auckland. Improvements now on domain : House and fences (out of repair). The area is leased for grazing purposes.

WHANGARIPO DOMAIN.

Section No. 10A, Parish of Pakiri. Area, 15 acres.

Work done during year : Three acres scrub cut, the work being done voluntarily.

WHANGATEAU DOMAIN.

Section No. 156A, Omaha Parish. Area, 15 acres and 20 perches.

Work done during year : Drain dug at the foot of the hill to carry away surface-water, and the spoil obtained thereby carted away and used to fill up holes on the flat ; and 500 ft. of tile drains put in. Improvements now on domain : Fences, gates, drains, tennis-courts, small pavilion, cricket-pitch, hall, hedge, 2 acres native bush, and grassing. Used for grazing, picnics, tennis, cricket, football, and sports. Proposed operations for ensuing year : Further draining.

WHARERE DOMAIN.

Section No. 7, Block II, Waihi South Survey District. Area, 51 acres 2 roods.

Work done during year : Scrub cleared. Proposed operations for ensuing year : Grassing 20 acres.

HAWKE'S BAY LAND DISTRICT.

AWANUI DOMAIN.

Section No. 6, Awanui Township. Area, 2 acres and 28 perches.

This domain is under the control of the Commissioner of Crown Lands, Napier. Leased.

CLYDE DOMAIN.

Suburban Sections Nos. 4, 5, 10, and 11, Town of Clyde. Area, 8 acres.

Used for general recreation. Leased.

DANNEVIRKE DOMAIN.

Suburban Section No. 12, Town of Dannevirke. Area, 40 acres.

Work done during year : Concrete fence erected, old gates removed from front of domain and re-erected at side entrance, cottage painted and renovated, planting done, grounds laid out, and general improvements. Improvements now on domain : Cottage, grandstand, fences of post and wire and concrete, trees, gardens, shrubs, and flowers. Used for football, hockey, cricket, sports, and general recreation. Proposed operations for ensuing year : Further planting and beautifying the grounds. A caretaker is employed.

ELSTHORPE DOMAIN.

Section No. 36, Block VII, Oero Survey District. Area, 13 acres 2 roods.

Work done during year : Portion of domain used for sports fenced in. Improvements now on domain : Fencing and planting. Used for sports. Proposed operations for ensuing year : Planting trees.

FARNDON PARK DOMAIN.

Portion of Wakahu Block, Clive Survey District. Area, 20 acres.

Work done during year : Pavilion, with dressing-room attached, erected. Improvements now on domain : Fencing, pavilion, trees, rustic seats, horse-yard, and conveniences. Used for sports, picnics, rowing, and Volunteer encampments.

FRASERTOWN DOMAIN.

Section No. 152, Town of Frasertown. Area, 31 acres 2 roods 14 perches.

Work done during year : Ten acres ploughed. Owing to wet weather, however, the land required reploughing, which is now being done. Improvements now on domain : Fences, grandstand, and conveniences. Used for cricket, tennis, football, sports, and shows. Proposed operations for ensuing year : Repairing fences and gates, and levelling and grassing.

GISBORNE DOMAIN.

Section No. 218, Town of Gisborne. Area, 7 acres 1 rood 22 perches.

Work done during year : Gates erected, fences repaired, and general maintenance. Improvements now on domain : Pavilion, eleagnus hedge, and levelling and grassing. Used for sports, cricket, and football. Proposed operations for ensuing year : General maintenance.

HAMPDEN BUSH DOMAIN.

Sections Nos. 36 and 2 of 37, Block XII, Maraekakaho Survey District. Area, 105 acres 3 roods 28 perches.

Work done during year : Trees planted, fences repaired, and noxious weeds kept down. Improvements now on domain : Fencing, drains, and plantation. Used for grazing. Proposed operations for ensuing year : Erecting fences and planting trees.

HAVELOCK DOMAIN.

Section No. 77, Block IV, Te Mata Survey District. Area, 4 acres 3 roods 10 perches.

Improvements now on domain : Gates, stiles, fences, and plantation. Used for cricket, tennis, football, picnics, and as a playground for schoolchildren.

MAKARAKA DOMAIN.

Known as the "Government Paddock," Turanganui Survey District. Area, 48 acres.

Work done during year : Fences re-erected where necessary, and general maintenance. Improvements now on domain : Fences, hedge of large ornamental trees, draining, and grassing. Leased for grazing. Proposed operations for ensuing year : Repairing fences and clearing briar.

MAKOTUKU DOMAIN.

Sections Nos. 13 and 66, Block IX, Takapau Survey District. Area, 23 acres 3 roods 18 perches.

Work done during year : Hedges maintained and conveniences erected. Improvements now on domain : Fences, trees, dressing-room, grassing, and outbuildings. Proposed operations for ensuing year : Improving water-supply and levelling.

MANGATOITOI DOMAIN.

Lot No. 5 of Section No. 5, Block VIII, Weber Survey District. Area, 46 acres and 3 perches.

This domain is under the control of the Commissioner of Crown Lands, Napier.

MATAMAU DOMAIN.

Section No. 33, Village of Matamau. Area, 7 acres 2 roods.

Work done during year : Domain cleared and fenced. Used for picnics. Proposed operations for ensuing year : Ploughing and sowing the domain in oats.

MEANEE DOMAIN.

Section No. 2, Block VIII, Heretaunga Survey District (Meanee South). Area, 92 acres.

Leased for grazing.

MOTU DOMAIN.

Section No. 31, Block II, Motu Survey District. Area, 15 acres.

The domain is at present covered with bush which contains milling-timber.

NORSEWOOD DOMAIN.

Section No. 174, Block V, Takapau Survey District. Area, 5 acres 2 roods 33 perches.

Improvements now on domain : Fencing, draining, ploughing, and grassing. Leased for grazing.

ORMOND DOMAIN.

Suburban Sections Nos. 11 and 12, Town of Ormond, and the "Bush Reserve" in Block I, Waimata Survey District. Area, 127 acres 3 roods 31 perches.

Work done during year : Drains cleaned, and general maintenance. Improvements now on domain : Fences, drains, buildings, and plantations. Leased. Proposed operations for ensuing year : Tree-planting, stumping, draining, and general maintenance.

ORMONDVILLE DOMAIN.

Block I, Town of Ormondville. Area, 15 acres 3 roods 20 perches.

Work done during year : Fences repaired and ground rolled. Improvements now on domain : Pavilion, trees, and shrubs. Used for cricket, football, hockey, and sports. Proposed operations for ensuing year : Erecting fences.

PAPAKURA DOMAIN.

Section No. 19, Block VIII, Heretaunga Survey District. Area, 39 acres 2 roods.

Leased for grazing.

PATUTAHU DOMAIN.

Section No. 81, Block I, Turanganui Survey District. Area, 61 acres and 22 perches.

Work done during year : Grandstand erected. Improvements now on domain : Fences, drains, ornamental plantation, grandstand, culverts, gates, gravelled approaches, well, windmill, pump, water-troughs, and two sheds. Used for picnics, sports, and grazing. Proposed operations for ensuing year : Erecting fences, gates, and conveniences.

PATUTAHU TOWN DOMAIN.

Sections Nos. 17 to 20, 24 to 30, 65 to 76, and 102 to 113, Town of Patutahi. Area, 8 acres 1 rood 16 perches.

Improvements now on domain : Fences, hedges, trees, hall, and piano. Leased for grazing. The hall is used for public entertainments. Proposed operations for ensuing year : General maintenance and improvement.

PUKETITIRI DOMAIN.

Section No. 30, Block XIV, Pohui Survey District. Area, 11 acres 3 roods 16 perches.

Leased on improvement conditions. Improvements now on domain : Boundary-fences and plantation.

TE ARAROA DOMAIN.

Section No. 21, Te Araroa Township. Area, 10 acres.

This domain is under the control of the Commissioner of Crown Lands, Napier. It is used for picnics.

TINIROTO DOMAIN.

Sections Nos. 8, 14, and 15, Tiniroto Village. Area, 4 acres.

This domain is under the control of the Commissioner of Crown Lands, Napier. Leased.

UAWA DOMAIN.

Block III, Town of Uawa. Area, 25 acres and 32 perches.

Work done during year : Trees planted and fences erected. Improvements now on domain : Fences, gates, pavilion, trees, and 5 acres levelled, subsoiled, and grassed for recreation purposes. Used for cricket, football, and picnics. Twenty-five acres leased for grazing. Proposed operations for ensuing year : Planting trees, and erecting conveniences and goal-posts.

VICTORIA DOMAIN.

Section No. 42, Block X, Woodville Survey District. Area, 23 acres 3 roods 10 perches.

Work done during year : Old fence removed and replaced by a new post-and-wire fence, barberry hedge cut back in a line with the new fence, and macrocarpa plantation topped and trimmed. Improvements now on domain : Fencing, clearing, grassing, draining, stumping, ploughing, hedges, and trees. Leased for grazing. Proposed operations for ensuing year : Erecting new gate-posts and gate, and new post-and-wire fence on two sides of the domain, thus protecting young plantations from stock, and levelling an area for a recreation-ground.

WAIPAWA DOMAIN.

Sections Nos. 16, 27, 28, and 29, Block XI, Waipukurau Survey District, and 105, Town of Waipawa. Area, 71 acres 2 roods 30 perches.

Improvements now on domain : Fences, walks, and shrubs. Used for picnics and band concerts.

WEBER DOMAIN.

Section No. 51, Block V, Weber Survey District. Area, 10 acres and 32 perches.

Work done during year : Stumping, clearing, and tree-planting. Improvements now on domain : Stumping, clearing, planting, and fencing. Used for sports and grazing. Proposed operations for ensuing year : Ploughing and removing stumps.

WHETUKURA DOMAIN.

Section No. 35, Whetukura Village. Area, 8 acres 1 rood.

Improvements now on domain : Fencing and grassing. Leased for grazing.

WOODVILLE DOMAIN.

Section No. 78, Block VIII, Woodville Survey District. Area, 39 acres 3 roods 19 perches.

Improvements now on domain : Dwellinghouse and outbuildings, fences, hedges, ploughing, stumping, and draining. Not used by the public. Proposed operations for ensuing year : General maintenance.

TARANAKI LAND DISTRICT.

CLIFTON DOMAIN.

Section No. 71, Block VII, Waitara Survey District. Area, 66 acres.

This domain is under the control of the Commissioner of Crown Lands, New Plymouth. Work done during year : Noxious weeds kept down. Cattle have been kept out of the domain, with the result that the native bush is reappearing over the slopes of the hill and along the river-bank, and in a year or two the depredations made by stock and fire will in a vast measure be covered by this young growth. Improvements now on domain : Twenty acres in grass, and fencing on southern boundary. Local supervision is exercised by an honorary ranger.

HUIRANGI DOMAIN.

Sections Nos. 138 to 142, 152 to 156, and 166 to 175, Town of Huirangi. Area, 10 acres.

Nine and a half acres leased on improvement conditions. Work done during year : Floor of stage in hall lowered and repaired. Improvements now on domain : Hall, fences, and trees.

INGLEWOOD DOMAIN.

Sections Nos. 73, 85, 135, 148, 162, 175, 185, 197, 204, 213, 224, 228, 230, 292, and part 181, Town of Inglewood. Area, 25 acres 3 roods 30.3 perches.

Work done during year : Creek on sports-ground filled in, and football-ground ploughed, levelled, and resown in grass. Improvements now on domain : Pavilion ; cycling and running track ; hockey, football, and cricket grounds ; fencing ; and plantations. Used for sports, football, hockey, cricket, and fire-brigade practices. Proposed operations for ensuing year : Draining creek on northern side of sports-ground, and general maintenance.

KAPONGA DOMAIN.

Sections Nos. 29, 30, 31, 38, 39, 40, and 69, Kaponga Village, Block XI, Kaipokonui Survey District. Area, 20 acres.

Sections 29, 30, and 31 were formerly known as Victoria Park (Kaponga) Domain. Three acres of this area has been stumped and grassed, and sections 38, 39, and 40 have been stumped, cleared, ploughed, and grassed. Improvements now on domain : Plantations, 20 chains fencing, and cement cricket-pitch. Used for football and cricket. Proposed operations for ensuing year : General improvements.

MAKAKA DOMAIN.

Sections Nos. 1, 2, and 43, Block X, Kaipokonui Survey District. Area, 16 acres.

No improvements effected during the year. The area is leased for grazing.

MANAIA DOMAIN.

Sections Nos. 7, 8, 9, 10, 11, 18, 19, 20, 21, and 22, Block XXVII, and 1, 2, 3, 12, 13, and 14, Block XXVIII, Town of Manaia, and 34 acres in Block VII, Waimate Survey District. Area, 38 acres.

Work done during year : Hedges trimmed. Improvements now on domain : Fences and ornamental trees. Used for sports, picnics, and general recreation. Proposed operations for ensuing year : Erecting section of grandstand, with dressing-rooms.

MANGAROA DOMAIN.

Section No. 35, Town of Mangaroa. Area, 11 acres and 16 perches.

Work done during year : Ten chains fencing erected. Improvements now on domain : Ten chains fencing, felling, and grassing. Leased for grazing. Proposed operations for ensuing year : Stumping, clearing, tree-planting, and fencing.

MANUTAHU DOMAIN.

Part of Section No. 9, Manutahi Settlement, Hawera Survey District. Area, 3 acres 3 roods 2 perches.

Improvements now on domain : Twenty-five chains fences, hall, plantations, and grass paddock. Leased for grazing.

MARSLAND HILL DOMAIN.

Sections Nos. 2340 and part of 2343, Town of New Plymouth. Area, 7 acres 3 roods 31 perches.

This area was brought under Part II of "The Public Reserves and Domains Act, 1908," on the 17th December, 1908. Since the close of the year a Domain Board has been appointed.

MOUNT BRYON DOMAIN.

Situated in Town of New Plymouth. Area, 5 acres 2 roods.

No improvements effected during the year. Improvements now on domain : Fences and shrubs. Used for general recreation.

NORMANBY DOMAIN.

Subdivision 10 of Section No. 45, Block V, Hawera Survey District. Area, 20 acres.

Work done during year : Hedges trimmed and cleaned, trees trimmed, gate erected and painted, and grounds cleaned up. Improvements now on domain : Trees, fences, hedges. Used for general recreation.

OHAWA DOMAIN.

Sections Nos. 317, 318, 319, and 320, Town of Ohawe. Area, 3 acres 2 roods 15 perches.

This domain is used as a seaside resort. Since the close of the year a Domain Board has been appointed to provide for its management.

OPUNAKE DOMAIN.

Blocks I, IV, V, VI, VIII, and Sections Nos. 1 to 6 of Block II, Town of Opunake, and the Opunake Town Belt. Area, 35 acres 2 roods 3 perches.

Work done during year: Oval drained. Improvements now on domain: Boundary-fences, gates, plantation, box-thorn hedges, grandstand with luncheon and other rooms, 60 chains drains, and an inner circular fence enclosing sports-ground. Used for sports, football, and grazing.

PATEA DOMAIN.

Blocks XLIV and XLV, Town of Patea. Area, 65 acres 2 roods 25 perches.

Work done during year: Paths mowed and cleaned, seed-beds and nursery maintained, 1,500 cuttings planted and others transplanted, 5 chains in Egmont Street refenced and planted with box-thorn hedge, 8 chains eleagnus hedge planted, 3 chains on Oxford Street boundary double-fenced and planted with box-thorn, and general maintenance. Improvements now on domain: Fences, hedges, football and cricket ground, tennis-courts, nursery, flower-garden, paths, gates, stiles, grandstand, pavilions, and tool-house. Used for football, tennis, cricket, hockey, picnics, and general recreation. Proposed operations for ensuing year: Completing Middlesex Street frontage, repairing and painting pavilion and grandstand, and further planting.

PIHAMA DOMAIN.

Section No. 48, Block I, Oeo Survey District. Area, 14 acres 2 roods.

Improvements now on domain: Fences, box-thorn hedge, trees, bowling-green, tennis-lawn, shelter-shed, well, windmill and pump, and water-supply. Used for football and sports. Eleven acres leased for grazing. Proposed operations for ensuing year: Erecting shelter-shed or pavilion, forming cycling and running track, and general maintenance.

PUKEARUHE DOMAIN.

Sections Nos. 1 to 6 and 25 to 30, Town of Pukearuhe, and 2 and 9, Pukearuhe Town Belt. Area, 27 acres 2 roods.

Leased for grazing.

PUNEHU DOMAIN.

Sections Nos. 1, 2, 5, 6, and 41, Village of Ponehu. Area, 7 acres.

Work done during year: Four acres ploughed and grassed, and running-track and 10½ chains of underground drain formed. Improvements now on domain: Four acres ploughing and grassing, running-track, fencing, and draining. Used for sports, picnics, and general recreation. Proposed operations for ensuing year: Stumping and clearing an area for a plantation.

PUNGAREHU DOMAIN.

Section No. 111, Block XII, Cape Survey District. Area, 10 acres.

Improvements now on domain: Fences, 1 acre plantation, and grassing. Used for sports, football, and picnics. Proposed operations for ensuing year: Planting trees and shrubs, and levelling and improving grounds.

PURANGI DOMAIN.

Section No. 2, Block II, Ngatimaru Survey District. Area, 10 acres.

Work done during year: Scrub cut. Leased. Used for picnics. Proposed operations for ensuing year: Burning scrub and sowing grass.

ROKOKARE DOMAIN (NGAIRE).

Rotokare Lake (44 acres) and Section No. 1, Block XII, Ngaire Survey District. Area 574 acres.

This domain is under the control of the Commissioner of Crown Lands, New Plymouth. Improvements now on domain: Boundary-fences, in good order. The area is practically all in native bush, and contains the Rotokare Lake. Not generally used.

ROKOKARE DOMAIN (PARITUTU).

Part of Native Reserve No. 2 (Arapepe), Block VIII, Paritutu Survey District. Area, 48 acres.

This domain is under the control of the Commissioner of Crown Lands, New Plymouth. Work done during year: Noxious weeds kept in check. Improvements now on domain: Boundary-fences and fences around native bush. Leased for grazing; also used for picnics.

ST. HELEN'S DOMAIN.

Surburban Section No. 1, Aria Village, Block X, Totoro Survey District. Area, 38 acres 2 roods.

Work done during year: Forty chains wire-fencing completed, and half a mile sports-track ploughed and grassed. Improvements now on domain: Forty chains fencing. Used for sports.

STRATFORD DOMAIN.

Sections Nos. 24 to 33, 36, 37, 38, 67 to 76, 79, 80, 81, 111 to 124, 150 to 163, 470 to 484, 509 to 518, 542 to 551, 574 to 581, 607 to 619, 639 to 651, 781, 858, 935, and 936, Town of Stratford, and Section No. 28, Block I, Ngaire Survey District. Area, 83 acres 1 rood 2 perches.

Work done during year: Portion fenced off and planted, flax and toitoi placed on the southern shore of Victoria Lake, trees trimmed, bulbs planted in King Edward Park, and the fence on the western side of Victoria Lake removed further away from the trees. Improvements now on domain: Four miles and three-quarters of fences, 13 acres plantations, grandstand, running and cycling track, football and hockey grounds, suspension bridge over the Patea River, seats, and paths. Used for sports, football, hockey, golf, cricket, and band concerts. Tenders have been called for stumping and clearing part of King Edward Park. Permission has been granted the Stratford clubs to lay down a croquet-lawn and to erect a band-rotunda. Other works will include planting and fencing. During the year an action was taken against the owner of cattle trespassing on the domain. The Stratford Acclimatisation Society presented the Board with four black swans, and these have been liberated on Victoria Lake.

TARATA DOMAIN.

Section No. 58, Tarata Village. Area, 8 acres 2 roods.

Work done during year: Fences repaired. Improvements now on domain: Twenty chains sheep-proof fences, 2 acres plantation, two tennis-courts, pavilion, and a quarter-mile running-track. Used for sports, tennis, and picnics.

TAUMATA DOMAIN.

Subdivisions Nos. 1 of Section No. 12 and 6 of Section No. 75, Block X, Ngaire Survey District. Area, 12 acres 1 rood 5·3 perches.

Work done during year: General maintenance. Improvements now on domain: Two grandstands, fencing, plantations, and football and sports ground. Used for sports and picnics. Proposed operations for ensuing year: Planting trees, forming walks, and generally beautifying the grounds.

TE NGUTU-O-TE-MANU DOMAIN.

Section No. 40, Block XVI, Kaupokonui Survey District. Area, 50 acres.

Work done during year: Two concrete gate-posts erected; cottage, tea-house, and gate-posts painted; and asphalt tennis-court commenced. Improvements now on domain: Fences, hedges, caretaker's cottage, iron and wooden gates, turnstile, pond, plantation, shrubs, monument, shelter-shed, 4 acres pasture, and native bush. Used for picnics and by tourists. Proposed operations for ensuing year: Completing tennis-court.

TOKO DOMAIN.

Part of Section No. 36 and part of Subsection 1 and Subsection 2 of Section No. 36, Block III, Ngaire Survey District. Area, 7 acres 1 rood 13 perches.

Work done during year: Pavilion painted. Improvements now on domain: Fifty chains fences, 350 trees and shrubs, bridge, gate, 24 chains sheep-proof wire netting, and pavilion. Used for cricket, football, picnics, and sports.

URENUI DOMAIN.

Section No. 12, Block III, Waitara Survey District. Area, 57 acres.

Work done during year: Sand waste improved. Improvements now on domain: Fences, drains, plantation, and swing bridge. Used for sports and picnics. Proposed operations for ensuing year: Repairing swing bridge and preventing encroachment of sand.

URUTI DOMAIN.

Section No. 8, Block II, Upper Waitara Survey District. Area, 10 acres 3 roods 16 perches.

Work done during year: Portion of domain cleared and stumps grubbed and burnt. Improvements now on domain: Fencing, gates, clearing, and levelling. Used for picnics. Proposed operations for ensuing year: Clearing remainder of sports-ground and forming walk along banks of river.

WAIMATE DOMAIN.

Section No. 78, Block VI, Waimate Survey District. Area, 13 acres 3 roods 2 perches.

Nil report furnished.

WAIPUKU DOMAIN.

Sections Nos. 45, 47, 49, and 51, Waipuku Village. Area, 2 acres and 12 perches.

Work done during year: Hedges cleaned and trimmed, and pine-stump removed. Used chiefly for grazing.

WELLINGTON LAND DISTRICT.

ALFREDTON DOMAIN.

Section No. 201, Block XII, Mangaone Survey District. Area, 100 acres.

Work done during year: Trees planted, and others loosened by wind staked. Improvements now on domain: Fences, 12 chains box drains, 32½ chains pipe drains, shed, and plantations. Used for sports, picnics, and cricket. Proposed operations for ensuing year: Planting trees, putting pipes in open drain and connecting with branch drains, filling in drain, and removing fence and utilising it for protecting trees.

APITI DOMAIN.

Sections Nos. 41A and part of 51, Block XI, Apiti Survey District. Area, 40 acres.

Work done during year: Shelter-trees planted. Improvements now on domain: Fences, shelter-trees, and 10 acres grassing. Used for sports and grazing. Proposed operations for ensuing year: Erecting fence around shelter-trees and forming two tennis-courts.

ASHHURST DOMAIN.

Sections Nos. 463A and 463C, Block III, Gorge Survey District. Area, 46 acres 2 roods 11 perches.

Work done during year: Area reploughed and sown down in grass, additional willow protective works formed, and precaution taken against fire. Improvements now on domain: One hundred and fifty chains fences, five gates, picket fence, 4 chains wire netting, shed for picnic parties, and 25 acres native bush. An area of about 1 acre has been fenced off for the accommodation of horses. Used for picnics and general recreation. Proposed operations for ensuing year: Planting trees, erecting fences, and general maintenance.

BULLS DOMAIN.

Section No. 5, Block XI, Rangitoto Survey District. Area, 45 acres.

Work done during year: Fences and gates erected, and tennis-court formed. Improvements now on domain: Fencing, levelling, cycle-track, dressing-shed, plantations, tennis-court, and road approaches. Used for sports, picnics, and rifle shooting. Proposed operations for ensuing year: Completing tennis-court, extending plantations, and general improvements and maintenance.

BUNNYTHORPE DOMAIN.

Sections Nos. 1501 to 1504, Block VII, Kairanga Survey District. Area, 44 acres 3 roods 23 perches.

Work done during year: Dead trees replaced, drains cleaned, and hay cut. An additional area of 4 acres 1 rood 14 perches has been acquired as an addition to the domain, and good fences and gates have been erected. Improvements now on domain: Fences, trees, roadway, and drains. Used for picnics. Leased. Proposed operations for ensuing year: Maintaining plantations and drains, and planting and improving the recently acquired area.

EASTBOURNE DOMAIN.

Sections Nos. 42, 44, and 46, Block I; and 43 and 48, Block IV, Pencarrow Survey District. Area, 551 acres.

Domain Board appointed 16th October, 1908. No works yet undertaken.

EKETAHUNA DOMAIN.

Section No. 40D and Lot 1 of Section No. 40, Block VI, Mangaone Survey District. Area, 14 acres and 7 perches.

A portion of the domain has been fenced off, and the borders planted with trees. The enclosure has been mowed, and a running-track pegged off and partly fenced. Improvements now on domain: Fences, drains, plantation, and running-track. Used for grazing and for sports and picnics. Proposed operations for ensuing year: Further planting and fencing.

FEATHERSTON DOMAIN.

Section No. 338, parts of Sections Nos. 152, 116, and 123, and Suburban Section No. 122, Town of Featherston, and the Featherston Town Reserve. Area, 88 acres and 5 perches.

Work done during year: Fences and buildings repaired, paths cleared, and noxious weeds kept down. Improvements now on domain: Picnic shed and tables, band-rotunda, seats, grandstand, tennis-pavilion, plantations, and fencing. Used for general recreation. Proposed operations for ensuing year: Planting trees and shrubs, and keeping down noxious weeds.

HASTWELL DOMAIN.

Section No. 64, Block XIV, Mangaone Survey District. Area, 12 acres 1 rood 24 perches.

Work done during year: Logging-up and clearing. Improvements now on domain: Fencing, clearing, felling, stumping, logging-up, and grassing. Leased for grazing. Proposed operations for ensuing year: Draining and ploughing.

HOROWHENUA LAKE DOMAIN.

Horowhenua Lake (951 acres), Subdivision 38 and part Subdivision 39, Horowhenua 11B Block. Area, 964 acres 3 roods 17 perches.

The road giving access to the domain has been completed. The southern portion of Subdivision 38 has been drained. Improvements now on domain: Road and drains. Used for boating, picnics, and sports. Proposed operations for ensuing year: Erecting boatsheds and planting trees.

HUNTERVILLE DOMAIN.

Sections Nos. 9, 10, 17, 18, 25, 26, 33, 54, 155, 156, 157, 158, 159, 160, 161, 163, and 178, Town of Hunterville, and 35, Block XV, Tiriraukawa Survey District. Area, 38 acres 1 rood 6-6 perches.

Work done during year: Boundary-fences repaired and new posts put in where necessary, $7\frac{1}{2}$ chains new fencing erected, trees planted, tennis-court completed, and general improvements. Improve-



A SHADY SPOT IN ASHHURST DOMAIN.



A PICNIC PARTY IN ASHHURST DOMAIN.

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ments now on domain : Fences, seats, walks, drains, tennis-courts, shed, $4\frac{1}{2}$ acres recreation-ground, and conveniences. Used for football, cricket, golf, tennis, and general recreation. Proposed operations for ensuing year : Planting trees, and general improvements.

ISLAND BAY DOMAIN.

An irregularly shaped island situated in Block XI, Port Nicholson Survey District. Area, 8 acres.

This domain consists of a rocky island situated in Island Bay. No improvements have been effected.

KAITAWA DOMAIN.

Suburban Section No. 13, Town of Kaitawa. Area, 15 acres and 36 perches.

Work done during year : Trees planted. Improvements now on domain : Sixty-one chains fences, 6 chains drains, 2 acres plantation, sports-ground, and 3 acres grassing. Used for picnics. Proposed operations for ensuing year : Digging around trees and planting others.

KENSINGTON PARK DOMAIN.

Sections Nos. 156 and 157, Block X, Mangaone Survey District. Area, 6 acres 2 roods.

The domain was leased for grazing. The lease expired on the 31st December, 1908.

KHANDALLAH DOMAIN.

Allotments Nos. 2 and 3 of Sections Nos. 1 and 2, Block XI, Belmont Survey District. Area, 31 acres 1 rood.

Work done during year : Main approach to domain improved, water-pipes installed, two fireplaces provided, and boundary-fence repaired. Improvements now on domain : Sixty chains fences, 60 chains paths, 3 chains water-pipes, iron gate, and two fireplaces. Used for picnics and scenic purposes. Proposed operations for ensuing year : Effecting further improvements to entrance to domain by the erection of a picket fence and gate, widening paths, making flower-beds and walks, and erecting seats. It may also be necessary to engage some one on holidays to prevent visitors damaging the native bush and ferns.

KIMBOLTON DOMAIN.

Sections Nos. 92B and 92C, Block XIII, Apiti Survey District, and Suburban Section No. 16, Town of Kimbolton. Area, 63 acres 3 roods 10 perches.

Work done during year : Macrocarpas planted to protect native bush, enclosure for horses fenced off, and pine-seed sown. A bed of macrocarpa will be ready for planting out next season. Twenty acres leased.

KOHINUI DOMAIN.

Section No. 23C, Block I, Makuri Survey District. Area, 10 acres.

Work done during year : Fences repaired. Improvements now on domain : Ten chains fences. Proposed operations for ensuing year : Removing timber and erecting fences.

LANGDALE DOMAIN.

Section No. 16, Town of Langdale (Suburbs). Area, 10 acres 1 rood 8 perches.

Work done during year : Shelter-shed and booth erected, and gorse grubbed. Improvements now on domain : Hall, booth, grandstand, $43\frac{3}{4}$ chains fences, and $2\frac{1}{2}$ acres plantation. Used for sports and picnics. Proposed operations for ensuing year : Putting floor in dining-room.

LEVIN DOMAIN.

Section No. 21, Block I, Waiopahu Survey District. Area, 41 acres 1 rood 3 perches.

Work done during year : Eight chains post-and-wire fence erected, 600 trees planted, 10 chains old fence repaired, and grass around trees mowed. Improvements now on domain : Clearing, grassing, fencing, and planting. Used for sports and picnics. Proposed operations for ensuing year : Attending to trees and replacing failures.

LEVIN PARK DOMAIN.

Section No. 24, Suburbs of Levin, Block I, Waiopahu Survey District. Area, 11 acres.

Work done during year : Gate erected, and general maintenance and repairs. Improvements now on domain : Oval, dressing-room, tennis-courts, fences, and belt of trees. Used for sports, picnics, demonstrations, and general recreation. Proposed operations for ensuing year : Erecting iron gates, and general maintenance.

MAKAIRO DOMAIN.

Section No. 47, Makairo Village Settlement, Makuri Survey District. Area, 5 acres.

This domain is under the control of the Commissioner of Crown Lands, Wellington. It adjoins the Makairo Village Settlement and public school, and comprises grassed land, leased for grazing. The improvements consist of dwellinghouse, outbuildings, garden and orchard, fences, hedges, and drains. The lessee has the right to remove the improvements on the termination of his lease.

MAKURI DOMAIN.

Section No. 162, and Suburban Sections Nos. 159 and 167, Town of Makuri. Area, 36 acres and 18 perches.

Work done during year : Thirty-four chains new fences erected, 9 chains old fence removed and re-erected, other fences repaired, trees planted, and running-track top-dressed. Improvements now on domain : Eighty-four chains fences, pavilion, 9 chains drain, and sports, cricket, and football ground. Used for sports, picnics, football, and cricket. Proposed operations for ensuing year : Planting trees, erecting fences, protecting river and creek banks, and removing pavilion to better site.

MANGATAINOKA DOMAIN.

Sections Nos. 79, Block XVIII, and 30, 31, and 32, Block XVII, Mangahao Survey District. Area, 24 acres 2 roods 5 perches.

Work done during year : Fences and buildings kept in repair, and grandstand erected. Improvements now on domain : Grandstand, fences, plantations, quarter-mile grass running-track, the corners being banked and drained, football-ground, cricket-pitch, shelter-shed, store-room, tank, and conveniences. Used for sports and picnics.

MANGAWEKA DOMAIN.

Sections Nos. 3, 4, 5, 6, 7, 8, 9, 10, and 11, Block II, 69, 71, 73, 75, 77, 99 to 104, and 1, Block IX, Town of Mangaweka ; 22, 55, 56, 57, Suburbs of Mangaweka ; and 50 and 52, Block X, Hautapu Survey District. Area, 83 acres 1 rood 28 perches.

Work done during year : Sections 101 to 104 stumped and cleared, and conveniences erected. Improvements now on domain : Fences, trees, buildings, and seats. Used for sports and picnics. Proposed operations for ensuing year : Planting trees, forming footpaths and cricket-pitch, and draining, ploughing, and sowing down in grass sections 101 to 104.

MARIMA DOMAIN.

Section No. 58, Block X, Mangahao Survey District. Area, 22 acres.

Work done during year : Timber and refuse removed to prevent danger from fire, and fence erected to protect native bush. Improvements now on domain : Fencing. Proposed operations for ensuing year : Erecting a mile and a half of fencing.

MOWHANAU DOMAIN.

Sections Nos. 18, 66, and 70, Mowhanau Village. Area, 12 acres 1 rood 3 perches.

During the year the spring on the domain has been securely fenced, and barbed wire placed along a dangerous cliff. Water can now be obtained from a tap on the roadside. The arrangements with the Waitotara County Council to construct a road through the town have been completed. Improvements now on domain : Fencing, draining, and plantations. Used for picnics, camping, and sports. It also affords a fine beach for bathing. The domain is within an hour's drive of Wanganui, and its popularity is rapidly increasing. Proposed operations for ensuing year : Erecting shelter-shed and conveniences, and planting trees.

NEWMAN DOMAIN.

Suburban Sections Nos. 30 and 115, Town of Newman. Area, 26 acres and 24 perches.

Work done during year : Trees replanted, docks cut down and burnt, and general maintenance. Improvements now on domain : Fences, hedge, trees, shrubs, felling, stumping, ploughing, and grassing. Used for sports, picnics, and grazing. Proposed operations for ensuing year : Erecting seats, cleaning shrubbery, and digging around trees.

NUKUMARU DOMAIN.

Sections Nos. 63 and 66, Block XIII, Nukumaruru Survey District, and 67, 71, and 71A, Block XIV, Wairoa Survey District. Area, 1,220 acres.

This area has been leased as a small grazing-run. The lease expired on the 1st March, 1909. During the year a road was taken through Sections 65 and 68, Block XIII, Nukumaruru Survey District, to give access to the domain.

OKOTUKU DOMAIN.

Sections Nos. 338 and 140, Block VI, Wairoa Survey District. Area, 161 acres and 23 perches.

Work done during year : Building painted, water-supply improved, fencing renewed, trees planted and cleaned, and general maintenance. Improvements now on domain : Buildings, fences, plantation, grassing, roads, and water-supply. Used as a rifle range and for Volunteer encampments, tournaments, picnics, and general recreation. Proposed operations for ensuing year : Erecting and renewing fences, maintaining and extending water-supply, and painting buildings.

ORAUKURA DOMAIN.

Section No. 65, Block XIV, Ohinewairua Survey District. Area, 9 acres 2 roods.

This domain is under the control of the Commissioner of Crown Lands, Wellington. Leased for a term of fourteen years from the 1st January, 1907.



BRIDGE AT ENTRANCE OF PETONE DOMAIN.

[Stonebridge and Co., Photo.]

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SOLDIERS' MEMORIAL, QUEEN'S PARK DOMAIN, WANGANUI.

[F. J. Denton. Photo]

PAHAUTANUI DOMAIN.

Section No. 115, Block IX, Paikakariki Survey District. Area, 105 acres 1 rood.

Work done during year. Cricket-ground cultivated, sown down in grass, and top-dressed; 2½ chains fences erected; 12 chains drain formed, and spoil carted on to domain. Improvements now on domain: One hundred and forty-five chains fences, five gates, 50 chains drain, reclamation around cricket-pitch and dressing-room. Used for cricket and general recreation. Seventy acres leased. Proposed operations for ensuing year: Forming 17 chains new drain, planting trees, and clearing rushes for racing-track.

PAHIATUA DOMAIN.

Situated in Block VIII, Mangahao Survey District. Area, 14 acres 3 roods.

Improvements now on domain: Plantations. Used for picnics, bathing, and general recreation. Proposed operations for ensuing year: Completing protective works and fencing in the domain.

PALMERSTON NORTH DOMAIN.

Sections Nos. 215, 220, and part of 214, Kairanga Survey District. Area, 13 acres.

Work done during year: Grass cut and removed to avoid danger from fire. Improvements now on domain: Boundary-fencing and plantation. Leased for grazing. Proposed operations for ensuing year: Filling up blanks in hedge, digging around growing trees, planting trees, and erecting a fence.

PARAPARAUMU DOMAIN.

Section No. 5A, Block VIII, Paraparaumu Suburban. Area, 5 acres.

During the year the Board met delegates from the various sports clubs and the general public to discuss the question of setting aside portions of the domain for the various sports. A general "bee" of inhabitants was held for preparing the flat land for ploughing. About 2¾ acres was ploughed and reploughed, disc-ploughed, levelled, harrowed, and sown with grass. Main and side gates and fencing have been erected, asphalt and grass tennis-courts formed, and notice-boards posted at entrance-gates. The cost of some of these works was defrayed by voluntary contributions. Improvements now on domain: Fences, levelling, grassing, gates, asphalt and grass tennis-courts, and 10 chains drain. Used for cricket, picnics, tennis, and general recreation. Proposed operations for ensuing year. Forming path from entrance-gate to tennis-courts, erecting pavilion, laying down an asphalt cricket-pitch, setting apart a horse-paddock, and planting trees, all of which will be paid for out of voluntary contributions.

PETONE DOMAIN.

Section No. 93, Block XIII, Belmont Survey District. Area, 13 acres and 13 perches.

Work done during year: Four lamps erected, tracks cleared of fallen timber, shrubs planted, and general maintenance. Improvements now on domain: Fifty-eight chains footpaths, bridge over stream and gully, 13 chains fencing, 6 chains cartway, and four lamps. Used as a promenade and as an easy means of access to Korokoro and Maungaraki Settlements. Proposed operations for ensuing year: Erecting gates and turnstiles.

PIPIRIKI DOMAIN.

Sections Nos. 1, 2, and 10, Block IV, Town of Pipiriki. Area, 17 acres 3 roods 29 perches.

This domain is under the control of the Commissioner of Crown Lands, Wellington.

POHANGINA DOMAIN.

Section No. 34, Town of Pohangina. Area, 10 acres.

Work done during year: Two acres stumped and ploughed. Improvements now on domain: Fences, plantation, and grassing. Leased for grazing. Proposed operations for ensuing year: Ploughing and sowing down in grass the 4 acres under crop.

PONGAROA DOMAIN.

Section No. 12, Pongaroa Township. Area, 13 acres and 12 perches.

Work done during year: Trees fenced off, cleaned, and failures replaced, and two buildings erected. Improvements now on domain: Fences, plantations, two buildings, cricket-pitch, ploughing, felling, and grassing. Used for sports, picnics, football, and cricket.

POUKIORE DOMAIN.

Section No. 35, Block XV, Tiriraukawa Survey District. Area, 17 acres 3 roods 8 perches.

Work done during year: Area swept by fire sown in grass. Improvements now on domain: Ring fences, grassing, and ½ acre plantation. Used for grazing. Proposed operations for ensuing year: Logging up.

PUKEOKAHU DOMAIN.

Section No. 17B, Block IX, Pukeokahu Survey District. Area, 6 acres 2 roods 35 perches.

This domain is under the control of the Commissioner of Crown Lands, Wellington.

QUEEN'S PARK DOMAIN.

Portions of Reserves E and K, Town of Wanganui. Area, 15 acres 3 roods 22 perches.

Improvements now on domain: Fences, plantation, band-rotunda, museum, band-room, and tennis and croquet courts. Used as a public park, and for band concerts, tennis, and croquet.

RAETIHI DOMAIN.

Sections Nos. 211 and 290, Town of Raetihi, and 251, Suburbs of Raetihi. Area, 17 acres 2 roods 39 perches.

Work done during year: One and a quarter acres cleared and stumped, and four gates erected. Improvements now on domain: Fifty-four and a half chains fences, 10 chains drains, ornamental trees, gates, sports-ground, ploughing, stumping, clearing, and grassing. Used for sports and picnics.

RANGATAUA DOMAIN.

Section No. 24c, Block VIII, Makotuku Survey District. Area, 96 acres 1 rood.

Improvements now on domain: Fences. Used for picnics and grazing.

RANGIWAHIA DOMAIN.

Section No. 61, Town of Rangiwhia. Area, 10 acres.

Work done during year: Additions made to hall, hedges trimmed, and fences and gates repaired. Improvements now on domain: Macrocarpa hedge, plantations, hall, asphalt tennis-court, and sheds. Used for sports, cricket, football, tennis, hockey, and picnics.

RAURIMU DOMAIN.

Section No. 5, Block IV, Raurimu Township. Area, 2 acres 3 roods 10 perches.

This domain is under the control of the Commissioner of Crown Lands, Wellington.

SCARBOROUGH DOMAIN.

Suburban Section No. 51, Town of Scarborough. Area, 12 acres and 30 perches.

Work done during year: Four acres ploughed and fenced. Improvements now on domain: Eighty chains fences, 1 acre plantation, and terrace battered down. Used for picnics and football. Proposed operations for ensuing year: Ploughing, levelling, and sowing down in grass the 4 acres fenced in.

TAIHAPE DOMAIN.

Suburban Sections Nos. 35, 38, 39, 40, 41, 42, 43, and 44, and Block X, Town of Taihape, and Sections Nos. 96, 97, 98, and 99, Block XIV, Ohinewairua Survey District. Area, 115 acres 1 rood 19 perches.

Work done during year: Paths and walk formed, portion of the domain fenced off and planted with ornamental and shelter trees, and logging up, stumping, and burning done. Improvements now on domain: Felling, ploughing, levelling, grassing, fences, walks and paths, shelter and ornamental trees, tennis-court, and pavilion. The members of the Athletic Club Committee co-operated with the Domain Board in the carrying-out of improvements. Used for cricket, tennis, sports, football, hockey, and general recreation; also for grazing. Proposed operations for ensuing year: Purchasing seats, levelling, and painting picket fence around oval.

TANE DOMAIN.

Sections Nos. 21 and 22, Block XVI, Mangahao Survey District. Area, 23 acres 3 roods.

This domain is under the control of the Commissioner of Crown Lands, Wellington.

TIRIRAUKAWA DOMAIN.

Section No. 42, Block VI, Tiriraukawa Survey District. Area, 9 acres 2 roods 25 perches.

No works yet undertaken. Proposed operations for ensuing year: Clearing scrub and preparing an area for a sports-ground. The domain is surrounded with native bush.

TORERE DOMAIN.

Sections Nos. 43, 44, and 45, Torere Village. Area, 11 acres 1 rood 19 perches.

Work done during year: Fencing erected. Improvements now on domain: Fencing, grassing, and clearing. Leased for grazing.

TURAKINA DOMAIN.

Section No. 191, Block I, Koitiata Survey District. Area, 85 acres 2 roods.

Not used by the public. The Board proposes to lease the domain on improvement conditions.

TUTAEKARA DOMAIN.

Section No. 49, Block XIV, Mangahao Survey District. Area, 9 acres 2 roods 14 perches.

Work done during year: Domain ring-fenced and dead timber removed. Proposed operations for ensuing year: Planting trees and clearing.

WATONE DOMAIN.

Section No. 14, Block III, Mount Cerberus Survey District. Area, 6 acres.

Work done during year: Fences erected, grass sown, portion of domain stumped, and cricket-ground levelled. Leased.

WAIOPEHU DOMAIN.

Section No. 43, Block II, Waiopehu Survey District. Area, 16 acres 2 roods.
This domain is fenced on three sides. It is all in native bush.

WAIOURU DOMAIN.

Section No. 15, Waiouru Township (Suburban). Area, 9 acres and 1 perch.
This domain is under the control of the Commissioner of Crown Lands, Wellington.

WAIROA DOMAIN.

Runs Nos. 2, 3, and 4, Block XI, Wairoa Survey District. Area, 229 acres 2 roods.
Work done during year: Waterwork constructed, fences renewed, and trees and shrubs cleaned.
Improvements now on domain: Fences, plantation, well with pump, and a portion planted with sand-grass. Used for fishing, picnics, and general recreation. Proposed operations for ensuing year: Erecting buildings.

WAITOTARA DOMAIN.

Sections Nos. 154, 155, and 156, Town of Waitotara. Area, 3 roods.
Improvements now on domain: Fences. Used as a paddock for schoolchildren's horses.

WANGANUI RIVER TRUST DOMAIN.

Situated on the banks of the Wanganui River. Area, 33,033 acres.
Used for scenic and climatic purposes.

WAVERLEY DOMAIN.

Part of Waverley Town Belt. Area, 126 acres 3 roods 9 perches.
Work done during year: Fences erected, others renewed, shrubs and flowers planted, and ornamental trees cleared of grass and rubbish. Improvements now on domain: Fencing, plantations, tennis-courts, croquet-lawn, bowling-green, football-ground, windmill, water-supply, and cricket-ground. Used for tennis, bowls, croquet, cricket, football, sports, and picnics. Proposed operations for ensuing year: Boring for artesian water, painting buildings, planting shrubs, trimming trees, and general maintenance.

NELSON LAND DISTRICT.

AORERE CAVES DOMAIN.

Sections Nos. 13 and 14, Block VIII, Aorere Survey District. Area, 128 acres 1 rood 25 perches.
Improvements now on domain: Gates at entrances to caves. Used for picnics and the preservation of scenery.

BLACKWATER DOMAIN.

Section No. 14, Block XII, Mawhera-iti Survey District. Area, 6 acres 3 roods.
Work done during year: Erection of pavilion commenced, and clearing and levelling done.
Improvements now on domain: Pavilion, clearing and levelling. Used for cricket, football, hockey, and general recreation. Proposed operations for ensuing year: Completing pavilion, erecting fences, and clearing and levelling 3 acres.

BRITANNIA HEIGHTS DOMAIN.

Parts of Sections Nos. 1 and 4, Suburbs of Nelson. Area, 11 acres 2 roods 24 perches.
No improvements effected during the year. Improvements now on domain: Fence and plantation. Used for general recreation.

BULLER DOMAIN.

Section No. 35, Block IV, Kawatiri Survey District. Area, 200 acres.
No improvements effected during the year. The area is not suitable for cultivation.

DENNISTON DOMAIN.

Section No. 5, Block VI, Kawatiri Survey District. Area, 6 acres.
Work done during year: Drains cleaned and top-dressing done. Improvements now on domain: Shelter-shed. Used for football, cricket, picnics, and sports. Proposed operations for ensuing year: Completing formation-work and top-dressing.

MILLERTON DOMAIN.

Sections Nos. 142 and 263, Town of Millerton. Area, 9 acres 2 roods 36 perches.
Work done during year: Rock removed. Improvements now on domain: Road approach of 3½ chains, and levelling. Used for football, cricket, tennis, hockey, sports, picnics, and Volunteer manoeuvres. Proposed operations for ensuing year: Further levelling.

MOTUEKA DOMAIN.

Section No. 193 Block III, Motueka Survey District. Area, 50 acres.
Leased on improvement conditions. Improvements now on domain: Fences, plantations, and iron gate. Not used by the public.

MURCHISON DOMAIN

Sections Nos. 18 and 20 (Square 170), Town of Murchison. Area, 27 acres 2 roods.

Work done during year: Two acres stumped, cleared, ploughed, and sown down. Improvements now on domain: Fencing, felling, grassing, stumping, and clearing. Used for sports and picnics. Proposed operations for ensuing year: Further stumping and clearing.

NELSON DOMAIN.

Situated in City of Nelson. Area, 21 acres 3 roods 5 perches.

Improvements now on domain: Fences and planting. Used for general recreation.

REEFTON DOMAIN.

Section No. 189, Block IX, Reefton Survey District. Area, 58 acres 2 roods 39 perches.

Used chiefly for picnics. Leased for grazing.

WAI-ITI DOMAIN.

Section No. 156, Block XV, Wai-iti Survey District. Area, 5 acres.

Work done during year: New fence erected on recently surveyed boundary, and a number of trees planted and protected with wire netting. Improvements now on domain: Fences, levelling, trees, shrubs, stumping, and clearing. Used for picnics and general recreation. Proposed operations for ensuing year: Replacing dead trees.

WAKEFIELD DOMAIN.

Sections Nos. 1 and 2, Block XVI, Wai-iti Survey District. Area, 5 acres 1 rood 36.8 perches.

This domain originally comprised Sections Nos. 85, Block XII, and 79B, Block XVI, Wai-iti Survey District, containing 81 acres 1 rood 8 perches. Section 32 of "The Reserves and other Lands Disposal and Public Bodies Empowering Act, 1907," authorised the sale of this area, and the present domain was purchased in lieu thereof. Improvements now on domain: Fencing, buildings, cricket-pitch, well, cycle-track, and levelling. Used for sports, picnics, football, cricket, and general recreation. Proposed operations for ensuing year: Building small bridge, planting trees, and levelling ground. Portion of the material for the bridge, and the trees, have been promised, and the levelling is to be carried out by the football club.

WANGAPEKA DOMAIN.

Section No. 31, Block XV, Wangapeka Survey District. Area, 13 acres 1 rood 33 perches.

No works have been undertaken on this domain.

WESTPORT (1) DOMAIN.

Sections Nos. 1020, 1021, and 1022, Town of Westport. Area, 38 acres 1 rood 6 perches.

Work done during year: Hedges trimmed; fences, drains, and water-supply repaired; gates erected; and approach formed. Improvements now on domain: Fences, drains, band-rotunda, and planting. Used as a promenade and pleasure resort; also for general recreation. Proposed operations for ensuing year: Asphalting and extending paths, trimming hedges and planting others, and forming fish pond and hatchery.

WESTPORT (2) DOMAIN.

Sections Nos. 986 and 987 (Victoria Square), Town of Westport, 103 and 104, Block VII, Kawatiri Survey District, and 12 acres 2 roods 30 perches, in the Town of Westport, known as the Beach Reserve. Area, 114 acres 1 rood 2 perches.

During the year Victoria Square, which comprised sour clay, was broken up, about 500 loads of loam carted and ploughed in, and the area sown down in oats after stumps had been removed. The oat-crop was ploughed in, and after further dressing the ground will be sown down in grass. Tennis-courts have been top-dressed and generally improved. A permanent caretaker is employed, who devotes his attention to tending ornamental trees and flowers, and generally improving the domain. During the year a number of seats were received from townspeople for use in the square. Improvements now on domain: Fences, grandstand, tennis-pavilion, tracks, walks, ornamental trees and shrubs, clearing, felling, and draining. Used for football, cricket, tennis, and general recreation. Thirty-seven acres leased. Proposed operations for ensuing year: Planting ornamental trees, laying out flower-beds and grass-plots, painting grandstand and fences, and planting and fencing the Beach Reserve. It is also proposed to erect swimming-baths on the domain.

MARLBOROUGH LAND DISTRICT.

BROWNLEE DOMAIN.

Sections Nos. 68, 69, and 70, Town of Havelock. Area, 2 acres and 29 perches.

Work done during year: Pavilion, outbuildings, and gate erected, filling-in work done, and general maintenance. Improvements now on domain: Fences, drains, plantation, levelling, clearing, pavilion, outbuildings, and gate. Used for sports, tennis, hockey, cricket, football, and general recreation. Proposed operations for ensuing year: Filling-in and levelling ground.



WESTPORT (2) DOMAIN : VIEW OF THE SQUARE.



CHERTSEY DOMAIN.



SWIMMING-BATH IN CHERTSEY DOMAIN.

FLAXBOURNE DOMAIN.

Section No. 10, Block VI, Town of Ward. Area, 14 acres and 32 perches.

Improvements now on domain : Thirty-six and a half chains boundary-fence. The area has been leased on improvement conditions.

KAIKOURA DOMAIN.

Sections Nos. 2 of 267, Suburbs of Kaikoura, and 2, 346, and 349, Block X, Mount Fyffe Survey District. Area, 81 acres 2 roods 18 perches.

No improvements effected during the year. Improvements now on domain : Fences, plantations, paddocks, and conveniences. Used for races, rifle shooting, and gun-club matches. Proposed operations for ensuing year : Erecting fences and planting trees.

MONKEY FACE DOMAIN.

Section No. 5, Block III, Hundalee Survey District. Area, 333 acres.

No improvements effected during the year. The domain is of rough formation, without means of access, and is used for grazing purposes. The fencing is the property of the lessee.

OMAKA DOMAIN.

Sections Nos. 31 and part 2 of 33, Block III, Taylor Pass Survey District. Area, 242 acres.

Work done during year : General maintenance. Improvements now on domain : Fences, drains, plantations, and cottage. Used for cricket, football, sports, and grazing. Proposed operations for ensuing year : General maintenance.

PELORUS DOMAIN.

Sections Nos. 25, Block VIII, Heringa Survey District, and 66 (Te Hau Island), Block XI, Wakamarina Survey District. Area, 22 acres.

No improvements effected ; land not used. Nine acres of the domain is an island in the Pelorus River, subject to floods. The remaining 13 acres is in native bush.

PICTON DOMAIN.

Part of Section No. 1147, Town of Picton. Area, 9 acres 2 roods.

This domain is steep and rocky. It contains some native bush and an area of about 2 acres suitable for picnics. Noxious weeds have been kept down.

SEDDON DOMAIN.

Section No. 9, Block VII, Town of Seddon. Area, 13 acres 2 roods 3 perches.

Work done during year : Levelling completed, grass sown, and fences repaired. Improvements now on domain : Fences, about two hundred trees (planted by schoolchildren last Arbor Day), plantation, and well. Used for cricket, football, picnics, and general recreation. Proposed operations for ensuing year : General maintenance and improvements.

TAKAHANGA DOMAIN.

Section No. 410, Town of Kaikoura. Area, 19 acres 2 roods 24 perches.

Work done during year : Area inside cycle-track levelled and sown in grass, two lawn-tennis courts formed and fenced, and a small enclosure fenced off for schoolchildren. Improvements now on domain : Fences, plantation, two asphalt tennis-courts, cycle-track, and conveniences. Used for sports, football, cricket, tennis, and hockey. Proposed operations for ensuing year : Planting trees.

WAITOHI DOMAIN.

Sections Nos. 1150 and 1161, Town of Picton. Area, 15 acres 1 rood 15 perches.

This domain is under the control of the Commissioner of Crown Lands, Blenheim. About a hundred loads of street-scrapings have been placed in the low-lying portions of the domain. The domain is a low flat situated at the point where the Waitohi Stream empties into the head of Picton Harbour, and the greater portion of it is subject to flooding by tidal waters.

WESTLAND LAND DISTRICT.

AHAURA DOMAIN.

Sections Nos. 12, Block I, Ahaura Survey District, and 30, Block XIII, Mawhera-iti Survey District. Area, 100 acres.

Nil report furnished.

BLACKBALL DOMAIN.

Reserve No. 1237, Block II, Mawheranui Survey District. Area, 7 acres.

This area was brought under Part II of "The Public Reserves and Domains Act, 1908," on the 17th December, 1908. Since the close of the year a Domain Board has been appointed.

DOBSON DOMAIN.

Reserves Nos. 258 and 290, Town of Dobson. Area, 8 acres 2 roods.

Used for football and cricket.

KUMARA DOMAIN.

Sections Nos. 815 to 835 (Reserves Nos. 221 and 824) and 778 to 814 (Reserve No. 255), Town of Kumara. Area, 7 acres 1 rood 13 perches.

A contract was let for the erection of 4 chains fencing, and has been partly completed. Improvements now on domain: Fencing, draining, clearing, and grassing. Used for football, hockey, and cricket.

MOANA DOMAIN.

Section No. 954, Block IV, Brunner Survey District. Area, 8 acres 1 rood 10 perches.

Work done during year: Domain cleared of all standing timber and scrub, which has been burnt; fences, gates, and a wharf erected; chopping-enclosure formed; running-track levelled, formed, and roughly completed, and grass sown. The track will require further attention to put it in good order. Proposed operations for ensuing year: Levelling, collecting and burning dead timber, and forming an area for picnics and sports.

OKARITO DOMAIN.

Reserve No. 201, Block II, Okarito Survey District. Area, 140 acres.

This domain is situated on an island in the Okarito Lagoon. It is partly swampy and partly covered with scrub. Since the close of the year a Domain Board has been appointed to control the area. The domain has been partly cleared, drained, and laid down in grass, and a roughly formed racecourse set out. Used for races, sports, and picnics. Proposed operations for ensuing year: Erecting buildings and fences, draining, clearing, and general maintenance.

RIMU DOMAIN.

Section No. 356, Block V, Kanieri Survey District. Area, 5 acres and 19 perches.

This domain is partly on land that is undermined. During the year a subsidence occurred, and filling in had to be resorted to. This filling in will form part of the running-track which the Board intends to form. Improvements now on domain: Fences, and an area cleared and levelled for cricket and football, for which the domain is used. Proposed operations for ensuing year: Forming a running-track and levelling.

ROSS DOMAIN.

Situated in Town of Ross. Area, 3 acres 3 roods 16 perches.

Work done during year: Shed shifted and repaired, ornamental trees planted, levelling done, and grass sown. Improvements now on domain: Fences, sheds, drains, ornamental trees, and cricket-pitch. Used for picnics, cricket, football, sports, and trotting. Proposed operations for ensuing year: Draining.

CANTERBURY LAND DISTRICT.

AKAROA DOMAIN.

Reserves Nos. 88 and 1724, Akaroa Survey District, and Section No. 45, Town of Akaroa. Area, 10 acres 2 roods.

Work done during year: Old boundary-fence replaced, main path covered with beach-shingle, hedges trimmed, and general maintenance. Improvements now on domain: Substantial fences, macrocarpa hedges, summer-house, block-house, two bridges, fountain, water-supply, gates, garden-seats, asphalt tennis-court, and avenues of native and exotic trees and shrubs. Used for tennis, picnics, and general recreation. Proposed operations for ensuing year: General maintenance. A caretaker is employed.

ALFORD FOREST DOMAIN.

Reserve No. 2738, Block V, Spaxton Survey District. Area, 13 acres 3 roods 2 perches.

A contract has been let for clearing gorse and laying down the domain in grass. Proposed operations for ensuing year: Sowing grass, repairing fences, and erecting an entrance-gate. It is proposed to lease the domain for a term.

AROWHENUA DOMAIN.

Reserves Nos. 3003 to 3013, and 3412, Town of Arowhenua. Area, 10 acres 3 roods 26 perches.

Leased for cropping and grazing. Work done during year: Taumatakahu Creek cleared of weeds. A permanent hand is employed to clean the creek.

ARUNDEL DOMAIN.

Reserve No. 2965, Block III, Town of Arundel. Area, 4 acres 1 rood 6 perches.

Work done during year: Hedges trimmed, gorse grubbed, and shrubs attended to. Proposed operations for ensuing year: Trimming hedges, grubbing gorse, attending to shrubs, and erecting conveniences.

ASHBURTON DOMAIN.

Area, 90 acres, situated in the Town of Ashburton.

Work done during year: New carriage-drive formed through the domain, and planted; new footpath formed; paddocks fenced off and gates erected; new sports-ground fenced off and levelled; latrines and wash-house erected; superfluous trees in plantations removed; swimming-baths and filter cleaned out; and general maintenance. Improvements now on domain: About four miles fencing, curator's lodge, propagating-house, pavilion, grandstand, shade-house, tool-house, bathing and other sheds, three asphalt and eight grass tennis-courts, meteorological station, tennis and bowling pavilions, water-supply (with tanks, wheel, and pipes), asphalt cycling-track, cricket-ground, croquet and bowling greens, lakes, plantations, rosary, flower-gardens, and wood, stone, and iron gates. In addition to its gardens and walks the domain is used for picnics, sports, and general recreation. Proposed operations for ensuing year: Completing the formation of new sports-ground, and general maintenance.

ASHLEY GORGE DOMAIN.

Reserves Nos. 3094, Block IV, Oxford Survey District, and 3231, Block XVI, Upper Ashley Survey District, XII, Mount Thomas Survey District, IV, Oxford Survey District, and I, Mairaki Survey District. Area, 74 acres.

Work done during year: Sweetbriar and gorse cleared and wire fence strained. Improvements now on domain: Fencing, road, retiring-room for ladies, concrete fireplaces, and plantation. Used for picnics.

ATAAHUA DOMAIN.

Reserve No. 3705, Block III, Ellesmere Survey District. Area, 5 acres 3 roods 39 perches.

Work done during year: Trees planted and maintained, and fences repaired. Improvements now on domain: Fences, plantation, gates, football-ground and goal-posts. Used for sports; also as a grazing-ground for schoolchildren's horses. Proposed operations for ensuing year: Laying down water-pipes, which the Board has already procured.

BURKE'S PASS DOMAIN.

Reserve No. 1595, Block VIII, Burke Survey District. Area, 45 acres and 3 perches.

Work done during year: Grass sown, noxious weeds eradicated, and fences repaired. Improvements now on domain: Ring fence, 2 acres fenced and planted with trees of various kinds, and grassing. Used for picnics and general recreation; a portion is also used for grazing. Proposed operations for ensuing year: Planting, eradicating noxious weeds, and repairing fences.

CARLETON DOMAIN.

Reserves Nos. 2808 and 2858, Block V, Mairaki Survey District. Area, 13 acres 3 roods.

Improvements now on domain: Fences, hedges, plantation, building, and concrete cricket-pitch. Used for sports and general recreation.

CASHMERE HILLS DOMAIN.

Reserve No. 161, Halswell Survey District. Area, 188 acres 3 roods 11 perches.

Work done during year: Wash-house and a trap-shed with stable and hay-loft erected, new iron tank procured, and the interior of cottage painted and papered. Improvements now on domain: House, cowshed, stable, trap-shed, Victoria Memorial, pavilion (brick), Rolleston Memorial gate, fences, plantations, nursery, and conveniences. Used for picnics and general recreation. One hundred and seventy acres leased. The lessee is required to keep the ground and buildings in good order, and supply refreshments at reasonable rates. Proposed operations for ensuing year: Planting.

CAVE DOMAIN.

Reserve No. 3683 (Rosewill Settlement), Block IX, Pareora Survey District. Area, 10 acres 1 rood 35 perches.

Work done during year: Ploughing. Proposed operations for ensuing year: Removing stones, and ploughing, cultivating, and laying down the domain in grass.

CHERTSEY DOMAIN.

Reserves Nos. 2376, Ashburton Survey District, and 3057, Town of Chertsey. Area, 32 acres 2 roods 27 perches.

Work done during year: Dressing-room improved and repaired, 15 chains standard-and-wire fencing erected, and general maintenance. Improvements now on domain: Fences, plantation, water-race, dressing-room, trotting and cycling tracks, and avenue. Used for sports and general recreation.

CHRISTCHURCH DOMAIN.

Parts of Reserves Nos. 24 and 25, Block XI, Christchurch Survey District. Area, 495 acres.

During the year the principal work has been in restoring to order the portion of the domain used for the New Zealand International Exhibition. The ground occupied by the buildings has been ploughed, cleared of *débris*, and sown in grass. A small lake has been excavated, and the soil therefrom used for filling in drains, &c. Some fifty thousand plants were bedded during the spring. Improvements now on domain: Fencing, gardens, gates, avenues of trees, walks, carriage-drives, Magnetic

Observatory, Museum, house for head gardener, cottage for park-ranger and garden-caretaker, tool-shed, hothouse, shade-house, three large and several small bridges, artesian wells, two lakes (one of 5 acres, the other of 2 acres), nursery for technical college, and plantations. Used for acclimatisation purposes, polo, golf, bowls, tennis, croquet, football, hockey, model-yachting, Volunteer encampments and reviews, picnics, and general recreation. About 4 acres is used for the purpose of giving agricultural instruction to students of the Christchurch Technical College. Proposed operations for ensuing year: Improving water-supply, including the erection of six tanks, erecting new propagating-house, and general improvements and maintenance.

COALGATE DOMAIN.

Reserve No. 2409, Hororata Survey District. Area, 28 acres 1 rood.

Work done during year: Fences and gates erected, and trees replanted; a tennis-court is in course of construction. Improvements now on domain: Fences, plantations, and water-races. Used for sports and grazing. Part is in crop, the remainder in grass. Proposed operations for ensuing year: Completing tennis-court, forming croquet-lawn, and repairing fences.

CONWAY DOMAIN.

Section No. 46, Block XII, Hawkswood Survey District. Area, 10 acres.

Leased for grazing. Improvements now on domain: Fencing and grassing.

COURTENAY DOMAIN.

Reserve No. 2413, Block VIII, Hawkins Survey District. Area, 20 acres.

Work done during year: Five hundred trees planted. Improvements now on domain: Fences and 12 acres plantation. Used for picnics. Proposed operations for ensuing year: Maintaining fences, removing 2 chains gorse fence and the wire fence on western boundary, and erecting the latter on the northern side.

CULVERDEN DOMAIN.

Reserve No. 3758, Block VI, Culverden Survey District, Culverden Settlement. Area, 18 acres 2 roods 31 perches.

This area was brought under Part II of "The Public Reserves and Domains Act, 1908," on the 17th December, 1908. Since the close of the year a Domain Board has been appointed.

CUST DOMAIN.

Reserves Nos. 2422 and 2423, Mairaki Survey District. Area, 17 acres 3 roods 33 perches.

No improvements effected during the year. Improvements now on domain: Surrounded by gorse hedge and a plantation (1 chain wide) of well-grown trees, concrete cricket-pitch, pavilion, seats, and well. Used for cricket, football, picnics, and sports.

DARFIELD DOMAIN.

Reserve No. 2635, Hawkins Survey District. Area, 10 acres.

Improvements now on domain: Sod fences, with gorse and wire, belt of trees, two lawn-tennis courts, and building used by players. Used for tennis and football. Proposed operations for ensuing year: Trimming hedges.

DOMETT DOMAIN.

Reserves Nos. 3177, Block XIX, and 3241, Block XVI, Lowry Peaks Survey District, and 3148, Cheviot Survey District. Area, 32 acres 2 roods 38 perches.

Improvements now on domain: Fences and plantations. Used for sports. Proposed operations for ensuing year: Fencing and planting the reserve at the mouth of the Hurunui River.

DORIE DOMAIN.

Reserve No. 3568, Block VI, Rakaia Survey District. Area, 4 acres.

Proposed operations for ensuing year: Erecting fences.

DUNSANDEL DOMAIN.

Reserve No. 316, Block VIII, Selwyn Survey District. Area, 10 acres.

Work done during year: Conveniences erected, and a new range placed in cottage. Improvements now on domain: Four-roomed cottage, pavilion, 2 acres plantation, bowling-green, tennis-court, cricket-ground, and running-track. Used for bowls, tennis, cricket, football, basketball, hockey, and sports.

EALING DOMAIN.

Reserve No. 3112, Rangitata Survey District. Area, 10 acres.

Nil report furnished.

ELLESMERE DOMAIN.

Reserve No. 1630, Southbridge Survey District. Area, 213 acres.

Work done during year: Trees topped, hedges trimmed, gorse on roads grubbed, picket fence repaired, and gate painted. Improvements now on domain: Building, grandstand, windmill and concrete trough, one and a half miles of "Anchor" patent fencing and gates, racing-track, plantations, and 12 acres fenced off and surrounded with trees. Used for sports, races, and picnics. Proposed operations for ensuing year: Further topping of trees, and general improvements.

FAIRLIE DOMAIN.

Reserve No. 2755, Tengawai Survey District. Area, 29 acres 2 roods.

Work done during year: Specimen trees planted and fenced off. Improvements now on domain: Ninety-five chains standard-and-wire fencing, 34 chains willow protective works and bank, swimming-pond, $1\frac{1}{2}$ acres of forest and ornamental trees, and specimen trees. Used for general recreation; 25 acres leased. Proposed operations for ensuing year: Removing superfluous trees, and general maintenance.

GERALDINE DOMAIN.

Reserves Nos. 305, 306, 1624, and 2716, Town of Geraldine. Area, 94 acres 1 rood 21 perches.

Work done during year: Fences, cricket-ground, drives and paths maintained, flower-beds and shrubberies stocked, noxious weeds eradicated, about two hundred trees planted, and pavilion repaired. Improvements now on domain: Fencing, gates, drives, paths, pavilion, swimming-bath and dressing-rooms, bicycle-track, and cricket-ground. Used for cricket, sports, football, picnics, and general recreation. Proposed operations for ensuing year: Top-dressing part of the oval and asphalt track, and general maintenance.

GLENTUNNEL DOMAIN.

Reserve No. 2407, and Sections Nos. 35467 and 35468, and part of Selwyn River-bed, Block VIII, Hororata Survey District. Area, 146 acres and 15 perches.

Work done during year: Fifty-six chains standard-and-wire fencing replaced, other fencing repaired, fallen timber removed, and the erection of a ladies' cloak-room commenced. Improvements now on domain: One hundred and forty chains fences, hedges, plantations, shrubberies, building containing two coppers and pump, and ladies' cloak-room in course of construction. Used for cricket, football, sports, and general recreation. Proposed operations for ensuing year: Removing gorse hedge, and replacing with standard-and-wire fence, trimming hedges, grubbing gorse, and completing and furnishing ladies' cloak-room.

GOVERNOR'S BAY DOMAIN.

Reserve No. 3060, Block VII, Halswell Survey District. Area, 6 acres 2 roods 3 perches.

Work done during year: Hall painted inside and outside, and gardens and grounds kept in order. Improvements now on domain: Hall, supper-room, ladies' room, dwellinghouse with outbuildings, fences, drains, trees, flowers, and shrubs. Used for sports, picnics, and cricket. Proposed operations for ensuing year: Effecting sanitary improvements to hall.

GREENDALE DOMAIN.

Reserve No. 1565, Hawkins Survey District. Area, 8 acres.

Improvements now on domain: Fences, pavilion, and cottage. Used for cricket. Leased for grazing.

HIGHBANK DOMAIN.

Reserve No. 3198, Block II, Corwar Survey District. Area, 10 acres.

Leased for grazing.

HINDS DOMAIN.

Reserve No. 2281, Block III, Hinds Survey District. Area, 22 acres 2 roods 7 perches.

Not used.

HINDS No. 2 DOMAIN.

Reserve No. 1262, Block VI, Hinds Survey District. Area, 9 acres 2 roods 33 perches.

Work done during year: Domain laid down in grass, and hedges trimmed. Improvements now on domain: Fences, plantations, asphalt tennis-court and water-race. Used for grazing, picnics, and tennis. Proposed operations for ensuing year: Erecting entrance-gates.

HORORATA DOMAIN.

Reserves Nos. 1589 and 2217, Hororata Survey District. Area, 227 acres.

Work done during year: Fences renewed, land around lake cultivated and kept in order, water-races cleaned, and gorse eradicated. Improvements now on domain: Two hundred and fifty chains fences, 40 chains gorse hedge, buildings, grandstand, stables, offices, racecourse, artificial lake, and about 30 acres plantation. Used for races, sports, and general recreation.

HURUNUI DOMAIN.

Reserve No. 2598, Waipara and Waikari Survey Districts. Area, 85 acres 2 roods.

Work done during year: Main entrance-gates erected and trees planted. Improvements now on domain: Fences, plantations, ornamental trees, racecourse, and water-supply. Used chiefly for races.

KAIAPOI DOMAIN.

Reserves Nos. 74, 3658, and 3731, Blocks XII, XV, and XVI, Rangiora Survey District. Area, 275 acres and 32 perches.

Work done during year: Fish-pond cleaned out, flower-beds kept in order, fences repaired, and conveniences erected. Improvements now on domain: Fences, hedges, gates, trees, shrubs, flower-beds, walks, seating accommodation, pond enclosed with wire netting and stocked with water-fowl and fish, artesian well, 5 chains pipe drain, and a shed with 12-gallon copper for the use of picnic parties. Used for sports, picnics, and general recreation.

KIMBERLEY DOMAIN.

Reserve No. 1566, Block III, Hawkins Survey District. Area, 14 acres.

Work done during year: Hedges trimmed, gorse grubbed, and water-race cleaned. Improvements now on domain: Seven acres plantation, fences, water-race, and bath. Used for picnics, cricket, and hockey.

KIRWEE DOMAIN.

Reserve No. 2416, Hawkins Survey District. Area, 10 acres.

Work done during year: Tennis-court formed and fenced in, and fences and water-race attended to. Improvements now on domain: Fences, plantations, cycle-track, and cricket-pitch. Used for cricket, tennis, and grazing. Proposed operations for ensuing year: Erecting conveniences, notice-board, and fence.

KNOTTINGLY PARK DOMAIN.

Reserve No. 1857, Waimate Survey District. Area, 169 acres.

Work done during year: Trees thinned, native shrubs and trees cultivated, avenue of trees planted, and general maintenance. Improvements now on domain: Caretaker's cottage, plantations, windmill, well, cookhouse, ponds, pheasant-run, fountain, fences, drains, trees, and flower-pots. Used for picnics, camping, and general recreation. Proposed operations for ensuing year: General maintenance.

KONGUTU DOMAIN.

Reserve No. 3594, Block X, Wakanui Survey District. Area, 3 acres 1 rood.

Used for picnics.

KOWAI DOMAIN.

Reserve No. 2066, Block VIII, Section No. 7989 and part of Section No. 7855, Block XII, Grey Survey District. Area, 247 acres and 10 perches.

Work done during year: Fences erected, trees planted, and general maintenance. Improvements now on domain: Jockey's room, booth, totalisator-house, saddling-paddock, horse-stalls, fences, plantations, building containing two coppers, and conveniences. Used for races, picnics, sports, hockey, tennis, football, and cricket. Proposed operations for ensuing year: Erecting protective works and a shelter-shed. The Board also proposes to fell some large trees and have them cut into timber for building purposes.

KOWAI PASS DOMAIN.

Reserve No. 1252, Block XII, Kowai Survey District. Area, 100 acres.

Work done during year: Gorse grubbed and hedges trimmed. Improvements now on domain: Fences, hedges, gates, plantation, two asphalt tennis-courts, and pavilion. Used for cricket, football, tennis, hockey, and picnics. Proposed operations for ensuing year: Repairing tennis-courts and fences, forming concrete cricket-pitch, trimming hedges, and general maintenance.

LAKE ELLESMERE DOMAIN.

Reserve No. 3048, Block XII, Leeston Survey District. Area, 20 acres.

Improvements now on domain: Fences, drains, wells, horse-troughs, plantations, and conveniences. Used for accommodation of anglers. There are a number of fishermen's huts on the domain. Proposed operations for ensuing year: Planting.

LEITHFIELD DOMAIN.

Reserves Nos. 2777 and 3595, Teviotdale Survey District. Area, 51 acres.

Work done during year: Well dug and pump inserted, and fence erected and painted. Improvements now on domain: Fences. Used for picnics and camping.

LINCOLN DOMAIN.

Part of Sections Nos. 884, 1712, 1880, and 2223, Town of Lincoln. Area, 6 acres.

Work done during year: Fences trimmed. Improvements now on domain: Fences and trees. Used as a public resort.

LITTLE RIVER DOMAIN.

Reserves Nos. 1649 and 3729, Block XIII, Pigeon Bay Survey District. Area, 66 acres and 6 perches.

Work done during year: Tennis-courts laid down; netting, bridging, and levelling done. Improvements now on domain: Fences, two lawn-tennis courts, planting, and levelling. Used for general recreation; 62 acres leased for grazing. The Board is negotiating for the purchase of an additional area of $6\frac{3}{4}$ acres.

LOBURN DOMAIN.

Reserve No. 3442, Block II, Rangiora Survey District. Area, 25 acres.

Work done during year: Wire fence erected, gorse grubbed, grass removed from young trees, lake enlarged and cleaned, trees planted, and gate erected. Improvements now on domain: Sixty-five chains boundary-fences, two plantations, lake, iron entrance-gate, and conveniences. Used for sports. Proposed operations for ensuing year: Trimming hedges, grubbing gorse, planting trees, and digging around young trees planted last year.



KOWAI DOMAIN : LOOKING SOUTH-WEST.



KOWAI DOMAIN : LOOKING NORTH-EAST.

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ENTRANCE TO PEARSON PARK, OXFORD DOMAIN.

[J. L. Nelson, Photo.]

LYTTELTON DOMAIN.

Part of Sections Nos. 375 and 714, Town of Lyttelton. Area, 5 acres 3 roods 17 perches.

Work done during year: Paths maintained and hedges trimmed. Improvements now on domain: Fences, drains, paths, plantations, and seats. Used as a pleasure resort.

LYTTELTON AND HEATHCOTE DOMAIN.

Part of Section No. 271, Block XVI, Christchurch Survey District. Area, 14 acres 3 roods.

Work done during year: Plantation cultivated and trees planted. Improvements now on domain: About 100 chains fences, bridge, 10-roomed dwellinghouse with outbuildings, and 1 acre plantation. Used for picnics, cricket, football, and encampments. Fifteen acres leased for grazing. Proposed operations for ensuing year: Further planting.

MACKENZIE DOMAIN.

Reserves Nos. 3152, 3153, 3155, 3156, 3168, and 3169, Town of Mackenzie, 3146, 3170, 3171, 3176, and 3178, Cheviot Survey District, and 3174 and 3175, Lowry Peaks Survey District. Area, 240 acres 1 rood 17 perches.

Work done during year: Portion of domain fenced and planted, failures in plantation replaced, and fences overhauled. Improvements now on domain: Five miles fences and 190 acres plantations. Used for sports, picnics, and general recreation; 114 acres leased. Proposed operations for ensuing year: Fencing and planting portion of St. Anne's Reserve, and cleaning and refilling gaps in plantations. The Board has decided to have a plantation of *Pinus insignis* trees sawn into timber, as they have reached maturity, and a process of decay has set in. After the trees have been removed the ground will be replanted.

METHVEN DOMAIN.

Reserves Nos. 3184 and part of 2026, Spaxton Survey District. Area, 21 acres.

Work done during year: Bathing-pond cleaned and provided with outlet-pipe, embankment of pond repaired, trees felled, fence renewed, and general maintenance. Improvements now on domain: Swimming-bath, dressing-shed, fences, water-race, plantation, and trotting-track. Used for football, swimming, trotting, sports, and general recreation.

MORVEN DOMAIN.

Reserve No. 3596, Block VII, Waitaki Survey District. Area, 60 acres.

Work done during year: Three hundred trees planted, and horse-rail erected. Improvements now on domain: Fences, gates, plantations, and conveniences. Used for sports and picnics. Proposed operations for ensuing year: General maintenance.

MOUNT SOMERS DOMAIN.

Reserves Nos. 2639 and 2028, Alford Survey District. Area, 119 acres 2 roods.

Work done during year: Accommodation for horses enlarged, and ladies' cloak-room provided. The trimming of hedges and grubbing of gorse is in progress. Improvements now on domain: Fences, plantations, swimming-pool, tennis-courts, football-ground, running-track, racecourse, with railings and buildings. Used for races, sports, football, tennis, swimming, and picnics.

NEW BRIGHTON DOMAIN.

Reserve No. 3061, Christchurch Survey District. Area, 8 acres and 17 perches.

No improvements effected. Domain comprises swampy land adjoining River Avon.

OHOKA AND EYRETON DOMAIN.

Reserve No. 1567, Rangiora Survey District. Area, 200 acres.

Leased for grazing. Improvements now on domain: Fences, 18 acres plantations, grandstand, stables, office, cloak-room, saddling-paddock, and horse-yards. Used for horse-racing. Proposed operations for ensuing year: Maintaining fences, plantations, and buildings.

OKAIN'S BAY DOMAIN.

Reserves Nos. 3734 and 3753, Block IV, Okain's Survey District. Area, 16 acres.

Work done during year: Holes in Sefton Park filled in and ground levelled, spoil being placed therein and on the running-track, and a number of slab seats erected. The Board was assisted by working-bees and by members of the various clubs using the domain, in addition to the material and labour for the erection of the seats being given free. Through the efforts of the ladies of the district in conducting refreshment-stalls at the annual sports meeting, a sum of £25 was paid off the debt on the pavilion, which was erected on Sefton Park before the area came under the control of the Domain Board. Improvements now on domain: Pavilion with tables and fittings, fences, three gates, and conveniences. Used for football, cricket, sports, and general recreation. Proposed operations for ensuing year: Erecting pump at well, fencing in area at beach, and reducing debt on pavilion in the same manner as was done during the year under review.

ORARI PARK DOMAIN.

Reserves Nos. 3028, 3081, and 3082, parts of Barker and MacDonald Streets, and Sections Nos. 11, Block V, and 16, Block VI, Town of Orari. Area, 14 acres and 28 perches.

Work done during year: Tennis-court top-dressed, specimen trees planted to replace dead ones, and macrocarpa hedges trimmed. Improvements now on domain: Fences, hedges, trees, asphalt tennis-court, and garden-seats. Used for tennis; 11 acres leased for grazing.

OXFORD DOMAIN.

Reserve No. 1651, and part of Rural Section No. 1889, Block VIII, Oxford Survey District. Area, 224 acres 2 roods 26 perches.

Work done during year: Asphalt tennis-court formed, cycle-track reelayed, flower-borders maintained, track formed and shingled, concrete floor placed in dressing-room, grandstand repaired, urinals erected, and pavilion completed. Improvements now on domain: Fencing, plantations, bicycle-track, concrete cricket-pitch, three asphalt tennis-courts, two grandstands, tea and dressing rooms, ladies' retiring-rooms, library, concrete swimming-bath and dressing-rooms, flower-borders, racecourse, plantations, saddling-paddock, concrete cricket-pitch, pavilion and convenience. Used for cricket, tennis, football, swimming, agricultural shows, sports, picnics, racing, and training. Proposed operations for ensuing year: Asphalting walk to a width of $3\frac{1}{2}$ ft., placing concrete around bath, repairing and painting fencing and pavilion. A small hall is also to be erected, the Domain Board contributing a portion of the cost.

PAPANUI DOMAIN.

Part of Rural Section No. 5, Block VII, Christchurch Survey District. Area, 6 acres 2 roods 25 perches.

Work done during year: Hedges trimmed, and well, drains, pavilion, and gates repaired. Improvements now on domain: Pavilion, outbuildings, boundary-fence, gates, ornamental trees, artesian well, and drain. Used for cricket, football, and picnics.

PLEASANT POINT DOMAIN.

Reserve No. 1580, Pareora Survey District. Area, 66 acres 3 roods 34 perches.

Improvements now on domain: Fences and gates. Used for sports, picnics, and races.

PREBBLETON DOMAIN.

Reserve No. 2419, Christchurch Survey District. Area, 3 acres 2 roods 15 perches.

Work done during year: Painting and general repairs. Improvements now on domain: Fences and plantation. Used for cricket, football, sports, and picnics. Proposed operations for ensuing year: Topping trees and thinning plantation.

PUDDING HILL DOMAIN.

Formerly part of Reserve No. 3315, Block VIII, Hutt Survey District. Area, 87 acres 1 rood 28 perches.

Work done during year: Cookhouse and conveniences erected. Improvements now on domain: Cookhouse and conveniences. Used for picnics. Proposed operations for ensuing year: Fencing domain.

RANGIORA DOMAIN.

Reserves Nos. 132 and 1563, Rangiora Survey District. Area, 95 acres.

Work done during year: General maintenance. Improvements now on domain: Boundary-fences, plantation, grandstand, windmill and water-service, cycle-track, and conveniences. Used for sports, cricket, football, hockey, golf, and picnics.

RANGIORA AND WAIKUKU BEACH DOMAIN.

Sections Nos. 3224, 3710, and 3718, Blocks VIII and XII, Rangiora Survey District. Area, 305 acres.

Work done during year: An area ploughed, levelled, and sown in grass for recreation purposes; horse-paddock fenced in, ploughed, and levelled; marram-grass planted, and convenience erected. Improvements now on domain: Plantations, fences, artesian well, shelter-shed, and conveniences. Used for picnics and camping.

RAWHITI DOMAIN.

Reserve No. 1616, and part of Reserve No. 1579, Christchurch Survey District. Area, 156 acres.

Work done during year: Trees thinned and undergrowth removed. Improvements now on domain: Fences, plantation, footpaths, and wells. Used for picnics. Proposed operations for ensuing year: Clearing and levelling about 5 acres for a sports-ground.

RICHMOND DOMAIN.

Part of Rural Section No. 182, Christchurch Survey District. Area, 7 acres.

Work done during year: Drainage and approach to domain improved. Improvements now on domain: Pavilion, two artesian wells, fencing, plantation on three sides, and conveniences. Used for cricket, football, picnics, and general recreation. Proposed operations for ensuing year: Putting boundary-fences in order, and thinning out trees in plantation.

RUAPUNA DOMAIN.

Reserve No. 3034, Block X, Shepherd's Bush Survey District. Area, 27 acres.

Seven hundred and fifty trees have been planted on the domain, football-ground cleared of stones, goal-posts erected, fence around plantation repaired, and grass sown. Used for football. Twenty-five acres leased.

RESERVE No. 3139.

Situated in Block IX, Cheviot Survey District. Area, 5 acres 1 rood.

This domain is under the control of the Commissioner of Crown Lands, Christchurch. It comprises a strip of land between the Buxton and Jed Rivers, and consists principally of sandhills. Some trees have been planted and the area improved by drainage. Improvements now on domain: Small hut and fences. Used for gardening and grazing.

RESERVE No. 3145.

Situated in Block V, Cheviot Survey District. Area, 5 acres.

This domain is under the control of the Commissioner of Crown Lands, Christchurch. It comprises a gully of native bush, and is leased to the owner of the adjoining property, who is required to protect it. He is doing so effectively. Used for picnics and grazing.

RESERVE No. 3149.

Situated in Block XI, Cheviot Survey District. Area, 23 acres.

This domain is under the control of the Commissioner of Crown Lands, Christchurch. It is in its natural state, is situated at the mouth of the Hurunui River, and contains a few native trees. Used by fishing and picnic parties.

RESERVE No. 3150.

Situated in Block IX, Cheviot Survey District. Area, 6 acres.

This domain is under the control of the Commissioner of Crown Lands, Christchurch. It is used for scenic purposes, and leased for grazing to an owner of adjoining land, who is required to protect it.

RESERVE No. 3158.

Situated in Block XVI, Lowry Peaks Survey District. Area, 10 acres 2 roods 7 perches.

This domain is under the control of the Commissioner of Crown Lands, Christchurch. It comprises low-lying and wet land, is fenced, and used for grazing.

SCOTSBURN DOMAIN.

Reserve No. 1554, Orari Survey District. Area, 50 acres.

No improvements effected during the year. Improvements now on domain: Fencing, plantation, and grassing. Used for grazing and cropping. Proposed operations for ensuing year: Forming water-race.

SEFTON DOMAIN.

Parts of Sections Nos. 3135 and 6675, Block IV, Rangiora Survey District. Area, 14 acres 2 roods 16 perches.

Work done during year: Trees felled, timber sawn, and firewood cut. Portion of the timber is to be used in the building of a pavilion; the remainder will be sold. Improvements now on domain: Fences, belt of trees, pump, flag-pole, twelve garden-seats, and conveniences. Used for cricket, football, tennis, sports, and picnics. Proposed operations for ensuing year: Erecting pavilion.

SHEFFIELD DOMAIN.

Reserve No. 2377, Block XIII, Oxford Survey District. Area, 20 acres.

Work done during year: Gates, fences, and pavilion repaired, fences and conveniences erected, and trees topped. Improvements now on domain: Fences, pavilion, with fireplace, table, and seats, trotting-track, judge's box, ticket-box, seats, plantations, and conveniences. Used for sports, cricket, football, hockey, picnics, trotting, shows, Volunteer encampments, and general recreation.

SOUTH MALVERN DOMAIN.

Section No. 1388, Block VII, Hororata Survey District. Area, 22 acres 3 roods.

Work done during year: Drains cleaned and gorse grubbed. Improvements now on domain: Fences and drains. Used for grazing. Proposed operations for ensuing year: Cleaning drains, trimming hedges, grubbing gorse, and planting trees.

SOUTH RAKAIA DOMAIN.

Reserves Nos. 2442 and 2986, Town of South Rakaia, and 2537, Block XIII, Rakaia Survey District. Area, 155 acres 2 roods.

Work done during year: General maintenance. Improvements now on domain: Fences, well and pump, horse-yards, saddling-paddock, swimming-pond, two dressing-sheds, building, concrete cricket-pitch, racecourse, running-track, rustic seats, water-race, and about 130 acres plantations. Used for sports, picnics, races, swimming, cricket, hockey, football, and general recreation. Proposed operations for ensuing year: General maintenance.

SPOTSWOOD DOMAIN.

Reserves Nos. 3714 and 3157, Block IV, Cheviot Survey District. Area, 9 acres 1 rood 10 perches.

Work done during year : Eight chains fences erected, and trees planted. Improvements now on domain : Fences and plantation. Used for football, cricket, sports, and general recreation. Proposed operations for ensuing year : Erecting iron gates with concrete posts, erecting fences, repairing others, and cleaning trees.

SPREYDON AND HALSWELL DOMAIN.

Reserve No. 110, Christchurch Survey District. Area, 20 acres.

Work done during year : Fence erected, drains cleaned, and hedges cut. Improvements now on domain : Fifty chains fences, plantations, 50 chains drains, sports-track, and tennis-court in course of preparation. Used for sports, tennis, and grazing. Proposed operations for ensuing year : Fencing-in and laying down asphalt tennis-court, and replacing dead trees.

SPRINGSTON DOMAIN.

Reserve No. 2362, Leeston Survey District. Area, 10 acres.

Work done during year : General maintenance. Improvements now on domain : Fences, trees, shrubs, building, concrete cricket-pitch, and asphalt tennis-court. Used for cricket, tennis, and picnics. Proposed operations for ensuing year : Planting trees and shrubs, and repairing fences.

ST. ANDREW'S DOMAIN.

Reserve No. 634, Otaio and Patiti Survey District. Area, 24 acres and 12 perches.

Work done during year : Fences trimmed, trees thinned and trimmed, promenade formed and sown with grass, trees trimmed to form an avenue around domain, and fence erected on racecourse. Improvements now on domain : Eight chains gorse, post-and-wire fence, 5 chains open drain, 7 acres mixed plantation, pavilion, and 17 acres grassing. Used for picnics, cricket, and sports. Proposed operations for ensuing year : General maintenance.

TEMPLETON DOMAIN.

Reserves Nos. 2351 and 2418, and part Rural Section 1807, Block IX, and part Rural Section 1680, Block XIII, Christchurch Survey District, and part Rural Section 2737, Block XVI, Rolleston Survey District. Area, 245 acres.

This domain comprises the principal area of 229 acres and three smaller ones of 6 acres at Templeton, 5 acres at Yaldhurst, and 5 acres at Hornby, the latter being purchased by the Board during the year. This area has been cultivated preparatory to autumn sowing with grass, boundary-fences erected and repaired, and ornamental and shelter trees and shrubs planted. A new pavilion on the Templeton ground and a small entrance-gate on the Yaldhurst ground (on which a croquet-lawn has been laid down) have been erected, and several minor improvements and repairs effected. The principal area has been kept in good order, and all fences and gates maintained. Improvements now on domain : Fences, trees, pavilions, tennis-courts, croquet-lawns, gates, seating accommodation, and conveniences. Used principally for grazing, also military manoeuvres, picnics, and sports. Proposed operations for ensuing year : Procuring and erecting entrance-gates, cultivating and sowing down an area in grass, planting trees, and erecting fencing, conveniences, and seating accommodation.

TEMUKA DOMAIN.

Reserves Nos. 307, Town of Arowhenua, and 1561, Opihi Survey District. Area, 183 acres.

Work done during year : Unsightly and overgrown trees removed and cut into fencing-posts and firewood, which has met with a ready sale, a number of young trees planted, and general maintenance. Improvements now on domain : Post-and-wire fences with gorse hedges ; six wicket gates of iron for foot traffic ; five double gates for vehicles, two of wood and three of iron ; caretaker's house, bowling-pavilion, tennis-shed, dressing-room, grandstand, offices, three tennis-courts, cycling-track, bowling-green, and croquet-lawn. Used for sports and picnics. Ninety-six acres leased. The several clubs using the domain continue to add considerably to its attractiveness by expending large sums out of their own funds in improving and maintaining those portions allotted to them for their particular sports.

TIMARU DOMAIN.

Part of Reserve No. 102, Suburbs of Timaru. Area, 8 acres 1 rood 18 perches.

Leased to South Canterbury Caledonian Society. Improvements now on domain : Grandstand, iron fence on three sides, plantation, oval sports-ground, bicycle-track, caretaker's cottage, and enclosures. Used for sports and football.

TINWALD DOMAIN.

Parts of Reserves Nos. 2378 and 2275, Block XVI, Westerfield Survey District. Area, 230 acres.

Work done during year : Superfluous trees and shrubs removed, 20 chains fencing erected, new tennis-court formed, and 18 acres sown down in grass. Improvements now on domain : Gorse, wire, and macrocarpa fences, pipe and open drains, grandstand and booth, three rooms for offices, pavilion, plantation, shrubs, tennis-courts, and lakelet with boat and boatshed. Used for cricket, tennis, boating, sports, and general recreation. Proposed operations for ensuing year : Erecting fences, planting 5 acres with trees and shrubs, constructing bath, laying down 20 acres in grass, repairing fences, and general maintenance.



ENTRANCE TO ST. ANDREW'S DOMAIN.

[*R. Stonyer, Photo.*]



ST. ANDREW'S DOMAIN: PART OF AVENUE A MILE AND A QUARTER LONG.

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[*R. Stonyer, Photo.*]

WAHI TAKARO DOMAIN.

Reserve No. 3716, Block VIII, Teviotdale Survey District. Area, 55 acres.

Work done during year: Five hundred trees planted, well sunk, and notice-board erected. Improvements now on domain: Fences, trees, and water-supply. Used for picnics, bathing, and camping. Proposed operations for ensuing year: Erecting fences and planting trees. A good deal of the work in connection with the improvement of this domain is done voluntarily.

WAIATU DOMAIN.

Section No. 1, Block XIII, Waiau Survey District. Area, 40 acres.

Work done during year: Trees removed and replanted; briar, blackberry, and gorse grubbed; fences and gates repaired; sanitary conveniences erected; tennis-courts formed and fenced in; and trees and shrubs planted. Improvements now on domain: Fences, sports-ground, dressing-room, and pavilion. Used for football, sports, tennis, and picnics. Proposed operations for ensuing year: Clearing gorse, briar, and blackberry; erecting fences; and planting protecting trees.

WAIHORA PARK DOMAIN.

Reserve No. 2585, Block XIV, Halswell Survey District. Area, 200 acres.

Work done during year: Grounds and plantations maintained, and portion of the latter replanted. Improvements now on domain: Fences, flower-garden, caretaker's cottage, windmills, artesian wells, conservatory, shade-house, water-pipes and tanks, gates, walks, sports-ground, and planting. Used for picnics, sports, races, and general recreation. Proposed operations for ensuing year: Erecting lattice-work, new rockery, and other ornamental improvements; painting gates and buildings, and general maintenance.

WAINUI DOMAIN.

Section No. 727, Block VII, Akaroa Survey District. Area, 2 acres.

Work done during year: Fence repaired, grass around trees removed, and gorse grubbed. Improvements now on domain: Fences, drains, trees surrounded with wire netting, and grassing. Used for sports, picnics, and as a children's playground.

WAITAKI NORTH DOMAIN.

Reserve No. 2915, Block XIV, Waitaki Survey District. Area, 57 acres.

Work done during year: Trees planted. Improvements now on domain: Fences, windmill, trough, pump, and trees. Used for grazing. Proposed operations for ensuing year: Planting trees and erecting fences.

WEEDON DOMAIN.

Reserve No. 1596, Block XV, Rolleston Survey District. Area, 48 acres 2 roods 17 perches.

Work done during year: Fences repaired. Improvements now on domain: Fences, 10 acres plantation, bathing pond and shed, and building. Used for cricket and picnics. Proposed operations for ensuing year: Clearing gorse and trimming hedges.

WEST MELTON DOMAIN.

Reserve No. 1564, Rolleston Survey District. Area, 20 acres.

Work done during year: New stakes and wires placed on western boundary. Improvements now on domain: Fences, hedges, and plantation, 11 yards wide, surrounding the whole area. Used for sports and picnics.

WINCHESTER DOMAIN.

Reserves Nos. 2402 and 2449, Block XIV, Geraldine Survey District. Area, 42 acres 1 rood.

Pavilion erected on tennis-grounds, trees planted, two pavilions painted, hedges trimmed, and undergrowth in plantations removed. Improvements now on domain: Two pavilions, cricket-ground, tennis and croquet courts, plantations, hedges, and fences. Used for cricket, tennis, croquet, and general recreation. Proposed operations for ensuing year: Planting trees and erecting windmill and tanks.

WOODBURY DOMAIN.

Reserve No. 1544, Orari and Geraldine Survey Districts. Area, 126 acres 2 roods 33 perches.

Work done during year: Fences and bath kept in order, grass mowed, asphalt tennis-court formed, and concrete roller made for rolling cricket-pitch. Improvements now on domain: Two hundred and sixty-eight chains fences, 5 acres drain-ploughed, two pavilions, dressing-room, lavatory, two asphalt tennis-courts, concrete cricket-pitch, concrete bath, and 8 acres plantation. Used for sports, picnics, cricket, tennis, bathing, and general recreation. Proposed operations for ensuing year: Overhauling and painting one pavilion and repairing the other, improving cricket-ground, repairing bath, and general maintenance.

WOODEND DOMAIN.

Reserves Nos. 2134, 3728, and 2539, Rangiora Survey District. Area, 268 acres 2 roods 3 perches.

Work done during year: Marram-grass and trees planted, 4 acres fenced in for a plantation, trees trimmed, pump erected, artesian well sunk, and concrete tank provided. Improvements now on domain: Fences, levelling, trees, pavilion, asphalt tennis-court, pump, artesian well with concrete tank. Used for picnics, football, cricket, tennis, sports, and as a children's playground. Proposed operations for ensuing year: Planting marram-grass and trees, and grubbing gorse.

OTAGO LAND DISTRICT.

ALBERT TOWN DOMAIN.

Section No. 5, Block IV, Lower Wanaka Survey District. Area, 81 acres.

This domain is under the control of the Commissioner of Crown Lands, Dunedin. No work has been undertaken.

ALEXANDRA DOMAIN.

Sections Nos. 1 to 23, Block XI, and 1 to 22, Block XII, Town of Alexandra. Area, 10 acres 2 roods 5 perches.

Work done during year: Asphalt tennis-court formed. Improvements now on domain: Fences, plantations, cricket-pitch, and two asphalt tennis-courts. Used for sports, picnics, and general recreation.

ALEXANDRA TOWN BELT DOMAIN.

The Town Belt, Town of Alexandra. Area, 160 acres 2 roods 17 perches.

Improvements now on domain: Ring fencing. Leased for grazing.

ALLANTON DOMAIN.

Block XIII, Town of Allanton. Area, 7 acres and 33 perches.

Improvements now on domain: Fences and plantation. Leased for grazing.

ARROWTOWN DOMAIN.

Section No. 38, Block VII, Shotover Survey District. Area, 6 acres.

Work done during year: Trees planted. Improvements now on domain: Tennis-court and wood and iron shed. Used as tourist resort, and for cricket, tennis, football, athletic sports, picnics, and military encampments.

BALCLUTHA DOMAIN.

Reserve No. 5, Town of Balclutha. Area, 1 acre.

Work done during year: Pavilion erected by bowling and tennis clubs. Improvements now on domain: Fences, bowling-green, lawn-tennis court, and pavilion. Used for bowls, tennis, and general recreation.

BASTINGS DOMAIN.

Sections Nos. 1, 2, 48, 49, and 50, Block I, Town of Bastings. Area, 1 acre 1 rood 14 perches.

No improvements effected during the year. Improvements now on domain: About 5 chains boundary-fence.

BERWICK DOMAIN.

Section No. 10, Block IX, Town of Berwick. Area, 4 acres.

Improvements now on domain: Plantation and fencing. Used for sports, picnics, and grazing. Proposed operations for ensuing year: Erecting about 3 chains fences.

CLINTON DOMAIN (PART OF).

Section No. 82, Block XI, Pomahaka Survey District. Area, 132 acres.

This portion of Clinton Domain is under the control of the Commissioner of Crown Lands, Dunedin, and is leased for grazing.

CLINTON DOMAIN (PART OF).

Section No. 1, Block XXVI, Town of Clinton. Area, 18 acres and 36 perches.

This portion of Clinton Domain is administered by the Clinton Town Board as a Domain Board. Work done during year: Eight acres sown in turnips. Improvements now on domain: Grandstand, fences, and trees. Used for sports, football, picnics, and grazing. The 8 acres has been again sown in turnips, in order that noxious weeds may be eradicated.

CLYDE DOMAIN.

Sections Nos. 38, 39, and 48, Block XI, and Blocks IV, V, VI, VII, LVI, and LVII, Town of Clyde. Area, 63 acres 3 roods 21·5 perches.

Work done during year: Two hundred trees planted and water-service extended to water them. Improvements now on domain: Fencing, plantation, and water-service. Used for sports, tennis, cricket, golf, football, and general recreation. Proposed operations for ensuing year: Planting trees.

CROMWELL DOMAIN.

Section No. 1, Block XV, Town of Cromwell, and the Cromwell Town Belt. Area, 231 acres.

Work done during year: Sand-barriers extended and repaired. Improvements now on domain: Trees, sand-barriers, and fences. Used for cricket, football, and Volunteer manoeuvres. The installation of the water-service has been completed, and the Board proposes to continue the planting of trees, sowing binding plants and grasses, and extending the sand-barriers.



WINTER GARDENS, DUNEDIN DOMAIN.

[Muir and Moodie, Photo.]



WINTER GARDENS, DUNEDIN DOMAIN.

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[Muir and Moodie, Photo.]



WINTER GARDENS, DUNEDIN DOMAIN.

[Muir and Moodie, Photo.]



WINTER GARDENS, DUNEDIN DOMAIN.

[Muir and Moodie, Photo.]

DUNEDIN DOMAIN.

Part of Dunedin Town Belt. Area, 52 acres and 6 perches.

Work done during year: Rock gardens and hardy fernery extended, a number of new borders and beds trenched and planted, collections of native and exotic shrubs added to, new bog-garden formed, watchman's house repaired and painted, terrace formed around winter gardens, paths altered, and 250 yards holly hedge planted. The winter gardens were built and presented to the city by Mr. R. Glendinning at a cost of £3,700. Improvements now on domain: Winter gardens, Superintendent's and watchman's houses, two propagating-houses with frames, ladies' cloak-room, band-rotunda, potting-shed, tool-house, fernery, iron gates, three bridges, fences, water-lily tank, plantations, seats, aviary, flower-beds and borders. Used as botanic gardens, and for picnics, football, cricket, and band concerts. A display of flowers is kept up throughout the year in the winter gardens, and attracts large numbers of visitors. These gardens are divided into three sections, one portion being devoted to decorative plants, another to tropical plants, and the third to subtropical plants. Proposed operations for ensuing year: Extending hardy fernery, forming and planting new borders, clearing noxious weeds, repairing paths, and procuring new frames in nursery.

DUNROBIN DOMAIN.

Section 31, Block VIII, Crookston Survey District. Area, 12 acres.

Leased on improvement conditions. Work done during year: Fencing and draining commenced. Improvements now on domain: Fencing and draining. Proposed operations for ensuing year: Completing fencing and draining.

DUNSTAN DOMAIN.

Section No. 72, Block I, Leaning Rock Survey District. Area, 135 acres 3 roods 21 perches.

Improvements now on domain: Racing-track. Proposed operations for ensuing year: Fencing and irrigating.

DUNTROON DOMAIN.

Section No. 23, Block IV, Maruenua Survey District. Area, 80 acres.

Work done during year: Rabbits kept down, football-ground and athletic ring formed and the latter fenced, trees planted, grass sown, and conveniences erected. Improvements now on domain: Rabbit-proof fences, fence enclosing sports-ring, trees, and conveniences. Used as a rifle range and for sports and picnics, also for grazing. Proposed operations for ensuing year: Keeping down rabbits and eradicating noxious weeds.

GREEN ISLAND DOMAIN.

Section No. 1, Block XIV, East Taieri Survey District. Area, 372 acres 2 roods 4 perches.

Work done during year: Trees, marram-grass, and lupins planted, and lupin-seed sown. The domain chiefly comprises sandhills. It is leased. Proposed operations for ensuing year: Planting marram-grass, lupins, and trees.

GREENWICH SQUARE DOMAIN.

Section No. 18, Block VI, Town of Waihola. Area, 1 acre 1 rood 11 perches.

Work done during year: All ploughed ground except the school garden area sown in oats, and plantations, walks, fences, and gates kept in repair. Improvements now on domain: Fences, four gates, macrocarpa hedge, two gravel walks, and school garden. Proposed operations for ensuing year: Sowing down cultivated area in grass, and general maintenance.

HAVELOCK (WAITAHUNA) DOMAIN.

Section No. 21, Block XXXII, Town of Havelock. Area, 5 acres 1 rood 32 perches.

Improvements now on domain: Fences and belt of macrocarpa trees. Used for sports, football, cricket, tennis, and general recreation.

HAWEA DOMAIN.

Section No. 19, Block IV, Lower Hawea Survey District. Area, 107 acres 1 rood 8 perches.

Work done during year: Racing-track sown in grass, and addition to booth completed. Improvements now on domain: Fences, iron gates, plantations, booth, horse-yard, and grass track. Used for sports, picnics, and races. Proposed operations for ensuing year: Providing additional seating accommodation and planting trees.

HERIOT DOMAIN.

Section No. 2, Block 1, Town of Heriot. Area, 9 acres 3 roods 9 perches.

Improvements now on domain: Fences, trees, drains, and shelter-shed. Used for cricket, football, hockey, and sports.

HYDE DOMAIN.

Sections Nos. 51, 52, 54, 55, 57, and 58, Block VII, Rock and Pillar Survey District. Area, 79 acres 2 roods 29 perches.

Work done during year: Portion grubbed and cleared. Improvements now on domain: Fences and racecourse. Used as a racecourse and rifle range. Proposed operations for ensuing year: Planting trees, and surrounding them with wire netting.

KAITANGATA DOMAIN.

Sections Nos. 1 to 15, Block XXVI, and 5, Block XLVI, Town of Kaitangata. Area, 68 acres 1 rood 38 perches.

Improvements now on domain: Fences, hedges, gates, drains, plantations, lawns, walks, tennis-court, grandstand, and pavilion. Used for sports, picnics, football, and cricket. Sixty acres leased.

KARITANE DOMAIN.

Sections Nos. 7, 8, 10, 11, 12, 13, 14, and 15, Block IX, and 2, Block XXIV, Town of Waikouaiti, and 24, Block VI, Hawksbury Survey District. Area, 37 acres 1 rood 4 perches.

Work done during year: Road gravelled. Improvements now on domain: Plantations securely fenced, extensive sand-breaks, protective works, and marram-grass plantations. Used for picnics and general recreation. Proposed operations for ensuing year: Putting flood-gates in position to prevent flooding by the waters of the Waikouaiti Estuary.

KELSO DOMAIN.

Sections Nos. 13 to 17, Block III, Town of Kelso. Area, 11 acres 2 roods 15 perches.

Work done during year: Fences and plantations kept in order. A grandstand has been partly built. Improvements now on domain: Fences, plantations, and grandstand. Used for sports and picnics. Proposed operations for ensuing year: Keeping fences and plantations in order.

KUROW DOMAIN.

Allotment No. 2A of Subdivision of parts of Sections Nos. 5 and 14, Block I, and 10 and 11, Block IV, Kurow Survey District. Area, 12 acres 1 rood 13·8 perches.

This area was brought under Part II of "The Public Reserves and Domains Act, 1908," on the 17th December, 1908. Since the close of the year a Domain Board has been appointed.

LAUDER DOMAIN.

Section No. 2, Block III, Lauder Survey District. Area, 200 acres.

Work done during year: Sixteen hundred trees planted, gravel road formed from entrance-gate to grandstand and planted with trees on either side, and dining-room erected. Improvements now on domain: Fences, gates, grandstand, stewards' stand, totalisator-house, judge's box, enclosure for Plumpton, water-race, and plantation. Used for races and coursing.

MAHENO DOMAIN.

Part of Section No. 2 of 22, Block VII, Oamaru Survey District. Area, 47 acres 3 roods 19 perches.

Work done during year: Breaches in river-bed repaired, fences kept in order, and notice-board erected. Improvements now on domain: Fences, plantations, tennis-court, creamery, and dwelling. Used for football, picnics, and grazing. Proposed operations for ensuing year: Erecting windmill and water-trough.

MANUHERIKIA DOMAIN.

Section No. 1, Block XXXVII, Town of Alexandra. Area, 96 acres 3 roods 5 perches.

During the year the domain was irrigated whenever water was available, and trees planted. Improvements now on domain: Fences, water-pipes, picket fence, and small iron building. Used for general recreation. Proposed operations for ensuing year: General improvements and further planting.

MAUNGATUA DOMAIN.

Section No. 22, Block XI, Maungatua Survey District. Area, 566 acres.

Leased. Used for picnics.

MID-WAKATIPU DOMAIN.

Section No. 39, Block IV, Mid-Wakatipu Survey District. Area, 400 acres.

This domain is under the control of the Commissioner of Crown Lands, Dunedin. No works have been undertaken.

MOA FLAT AND ETTRICK DOMAIN.

Section No. 44, Block I, Benger Survey District. Area, 420 acres.

This domain is administered by the Commissioner of Crown Lands, Dunedin, and is held under pastoral lease.

MOERAKI DOMAIN.

Sections Nos. 15, Block II, 13, Block III, and 4, 5, 6, and 7, Block XIV, Town of Moeraki. Area, 23 acres 3 roods 34 perches.

Sections 4 to 7 fenced; also an area for a nursery. Improvements now on domain: Fences and nursery. Used for picnics and grazing. Proposed operations for ensuing year: Planting trees and removing fence.

NASEBY DOMAIN.

Section No. 23, Block I, Naseby Survey District. Area, 120 acres.

Improvements now on domain: Grandstand, offices, racing-track, and fences. Used for racing.

OCEAN BEACH DOMAIN.

Sections Nos. part 28 and 31, Block VII, Otago Peninsula Survey District, and 4 and 6, Block XII, Dunedin and East Taieri Survey District. Area, 221 acres 2 roods 11 perches.

The past year in respect of this domain calls for special notice on account of rapid progress, and is considered by the Board to be the most successful since its constitution. The term of lease of the baths expired, and tenders were called and a new lease granted to the previous holder. The buildings have been thoroughly repaired and painted inside and outside. The pile groins at St. Clair continue



OCEAN BEACH DOMAIN: SAND-DUNES RAISED IN SIX MONTHS BY SCRUB GROINS.



CHISHOLM PARK, OCEAN BEACH DOMAIN: SANDHILLS LEVELLED, TREATED WITH SEWAGE, AND PLANTED WITH MARRAM-GRASS.

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to fulfil their purpose. The sandhills above high-water mark are covered with marram-grass and lupins. Owing to the covering of fences by sand, it has been necessary to erect new ones for a distance of 60 chains. Thirteen chains of fencing has also been erected opposite Tahuna Park to protect the grass planted there and to strengthen a weak spot in the sandhills. About 60 chains of scrub fence was erected, and is now mostly covered with sand. This divides the old lagoon-site into two parts as far as the St. Kilda entrance to the beach, and is safe from any wave that may break over the outer bank. The band-stand site has been extended by taking 15 ft. from the road at the entrance, and a jarrah picket fence erected on the boundary. The enclosure has been sloped off and greatly improved, and further improvements are contemplated in the way of making up the ground and planting trees and shrubs. The disposal of sewage has been carried out in a most satisfactory manner. The marram-grass continues to bind the sand together, and lupins are spreading over the whole of the sandhills. During the coming year it is proposed to trench that part of the hills immediately above Chisholm Park. This is the only portion of the domain remaining in its original condition. It is also proposed to extend the road seaward at St. Kilda, to improve the approach to the beach at Beach Street, to construct a septic tank, erect conveniences, and continue scrub fencing and planting of marram-grass.

[NOTE.—This report is for the year ending 31st March, 1909.]

OTOKIA DOMAIN.

Section No. 47, Block I, Otokia Survey District. Area, 12 acres 2 roods.

Work done during year: Forty chains post-and-wire fence erected. Improvements now on domain: Forty-nine chains post-and-wire fences, and post-and-chain horse-stand. Used for picnics and sports.

OUTRAM DOMAIN.

Sections Nos. 31 and 32, Block VII, Maungatua Survey District, and 14 to 20 and 22, Block I, and 7, Block XV, Town of Outram. Area, 402 acres 1 rood 5 perches.

Work done during year: Conveniences, seats, and pump erected; fences and buildings repaired; and trees and hedges trimmed. Improvements now on domain: Buildings, plantations, hedges, fences, cycle-track, swings, seats, water-supply, and bowling-green. Used for bowls, cricket, tennis, picnics, sports, races, and football. Proposed operations for ensuing year: Maintaining fences and buildings, and trimming trees and hedges.

OWAKA TOWNSHIP DOMAIN.

Section No. 111 (formerly part of Section No. 3), Block VIII, Glenomaru Survey District. Area, 3 acres 3 roods 0.8 perches.

Work done during year: Tennis-court formed. Improvements now on domain: Tennis-court, swings, and fences. Used for football, sports, shows, cricket, and Volunteer parades. Proposed operations for ensuing year: Ploughing, sowing down in grass, and generally improving the domain.

PALMERSTON DOMAIN.

Sections Nos. 5 to 18, Block XVI, Town of Palmerston. Area, 3 acres 2 roods.

Work done during year: Fences repaired. Improvements now on domain: Boundary-fences. Used for cricket and football.

POUNAWEA DOMAIN.

Sections Nos. 31, 53, 54, 55, 58, 59, 60, and 61, and a closed road, Block VI, Glenomaru Survey District. Area, 13 acres 1 rood 16 perches.

Owing to the very dry season the grass sown was a failure, and the area will require to be resown. Improvements now on domain: Thirteen chains fences, and gate. Used for picnics and sports, also for a Christian Convention. Proposed operations for ensuing year: Erecting 5 chains rabbit-proof fence, and stumping, burning-off, and sowing down about 2 acres.

QUEENSTOWN DOMAIN.

Blocks LIV, LV, and LVI, Town of Queenstown. Area, 7 acres and 19 perches.

Domain Board appointed 15th September, 1908. No works yet undertaken. The Board contemplates the using of the area for forestry purposes.

RANFURLY DOMAIN.

Sections Nos. 1 to 15, Block XIII, Town of Ranfurly. Area, 10 acres 2 roods 36 perches.

Work done during year: Domain fenced. A contract has been let for ploughing, levelling, and generally improving the area.

RANFURLY PARK DOMAIN.

Suburban Sections Nos. 7 and 8, Block I, Town of Ranfurly. Area, 52 acres and 31 perches.

Improvements now on domain: Racecourse. Used chiefly for races. Proposed operations for ensuing year: Fencing domain.

RECORD REIGN DOMAIN.

Section No. 1, Block LXXXIX, Town of Cromwell. Area, 4 acres.

Work done during year: General improvements. Improvements now on domain: About 25 chains fences, hedges, and pavilion. Used for sports, rifle-club encampments, picnics, and general recreation.

ROSLYN DOMAIN.

Section No. 7, Block X, Dunedin and East Taieri Survey District. Area, 12 acres 2 roods 28 perches.
Work done during year: Tracks repaired and noxious weeds cut. Leased for grazing.

ST. BATHAN'S DOMAIN.

Section No. 25, Block II, St. Bathans Survey District. Area, 23 acres 1 rood 5 perches.

Work done during year: General maintenance. Improvements now on domain: Forty-five chains fences, four gates, trees, hedges, curling and skating pond, football and cricket grounds, and two running-tracks. Used for sports, picnics, and general recreation. Proposed operations for ensuing year: Removing broom.

TAIERI LAKE DOMAIN.

Sections Nos. 12 and 18, Block XI, and 2, Block XII, Maniototo Survey District. Area, 430 acres 3 roods.

Work done during year: Embankments on creeks formed. Improvements now on domain: Fences, plantations, and embankments. Leased. Proposed operations for ensuing year: Erecting fences and planting trees.

TOKOMAIRIRO DOMAIN.

Parts of Sections Nos. 103 and 104, Block XII, Tokomairiro Survey District. Area: 59 acres 2 roods 30 perches.

Work done during year: Fences and hedges attended to, flower-beds formed, shrubs planted, and the grounds kept in good order. Improvements now on domain: Pavilion, plantations, fences, drains, ponds, and paths. Used for football, cricket, and tennis. Proposed operations for ensuing year: Attending to flower-beds, planting shrubs and flowers, and general maintenance.

TROTTER'S CREEK DOMAIN.

Section No. 36, Block XI, Moeraki Survey District. Area, 183 acres and 11 perches.

Work done during year: Tracks repaired and undergrowth cleared. Improvements now on domain: Footbridge, rustic seats, and about 70 chains tracks. Used for picnics and camping parties. Proposed operations for ensuing year: Erecting shelter-shed and seats.

TUAPEKA DOMAIN.

Blocks XV, XVI, XVIII, XIX, XXXV, Sections Nos. 1 to 8, 10 and 13 to 16, Block XIV, 1 to 7 and 20, Block XVII, 1 to 6 and 17 and 18, Block XXXIV, 6, Block LIII, 3, 4, and 5, Block LIV, and three areas, containing 1 rood, 2 roods 35 perches, and 3 roods 24 perches respectively, Town of Lawrence, and Sections Nos. 20 and 30, Block XIX, Tuapeka East Survey District. Area, 128 acres and 26 perches.

Work done during year: Noxious weeds eradicated, fences repaired and in some places renewed, stiles erected, gate painted, bulbs and flowering plants planted, paths kept in order, and 250 trees planted and protected with wire netting. Used for cricket, football, picnics, shows, Volunteer parades, and races.

WAIHEMO DOMAIN.

Section No. 74, Block IV, and parts of Sections Nos. 56 and 58, Block X, Moeraki Survey District. Area, 139 acres 1 rood 5 perches.

Work done during year: Ground prepared, and about 2,000 native and other trees planted. Improvements now on domain: Fences and trees. Used for picnics and grazing. Proposed operations for ensuing year: Making walk and further planting.

WAIKOUAITI DOMAIN.

Situated in Town of Hawksbury. Area, 448 acres 2 roods 26 perches.

One hundred and fifty-eight acres leased. Work done during year: Filling-in continued on recreation-ground, tennis-courts formed, building removed to a site adjoining the bowling-green and tennis-courts to act as a pavilion, trees planted, and conveniences erected. Improvements now on domain: Canal and connecting drains, fences, reclaimed area, plantations, embankments, bridges, two pavilions, bowling-green, and tennis-courts. Used for picnics, sports, races, cricket, football, hockey, bowls, and tennis; also for cattle-grazing. Proposed operations for ensuing year: Effecting further improvements to recreation-ground.

WANAKA ISLANDS DOMAIN.

Manuka or Pigeon Island, Crescent or Rabbit Island, the island in Stevenson's Arm, and Merino or Roy's Island, all in Lake Wanaka; Sections Nos. 1, Block XIII, and 29, Block XIV, Lower Wanaka Survey District, and Sections Nos. 1 to 4, Block XIV, 1 to 3, Block XV, 1 to 6 and 8 to 14, Block XVI, and 1 to 16, Block XVII, Town of Pembroke. Area, 1,007 acres 2 roods 30 perches.

Four hundred and fifty acres leased on improvement conditions. Work done during year: New tracks formed, existing tracks on Ruby and Manuka Islands maintained, and seating accommodation provided. Improvements now on domain: Wharves, buildings, fences, tracks, and planting. Used for picnics, as a sanctuary for flightless birds, and generally for the gratification of the lovers of the beautiful in nature. The domain is visited by large numbers of tourists. Proposed operations for ensuing year: Planting trees, adorning specially favoured spots in the domain, and improving the means of access.



TOKOMAIRIRO DOMAIN.

[Optimus Studio Co., Photo.]



TOKOMAIRIRO DOMAIN.

To face page 44.]

[Optimus Studio Co., Photo.]



MAIN ENTRANCE TO TUAPEKA DOMAIN.

[Rev. R. S. Allan, Photo.]



RESERVOIR ON TOP OF TUAPEKA DOMAIN.

[Rev. R. S. Allan, Photo.]

WANGALOA DOMAIN.

Part of Section No. 8, Block VII, Coast Survey District. Area, 32 acres 3 roods 13 perches.

Improvements now on domain : Fences, drains, and plantations. Used for picnics and sports.

WILLSHER DOMAIN.

Sections Nos. 1, 3, and 4 of 16, and an intersecting road-line, Block VII, South Molyneux Survey District. Area, 14 acres and 39 perches.

Work done during year : Trees planted and a ring and racing-track formed. Improvements now on domain : Fences, drains, seats, trees, ring and racing-track. Used for sports and picnics. Proposed operations for ensuing year : Forming tennis-court.

SOUTHLAND LAND DISTRICT.

BRYDONE DOMAIN.

Section No. 152E, Block II, Brydone Village. Area, 4 acres 3 roods.

Work done during year : Post-and-wire fence erected on the northern, eastern, and western sides of the domain, and land sown in oats preparatory to laying down in grass. Improvements now on domain : Twenty chains fencing. Proposed operations for ensuing year : Cultivating and sowing down the domain in grass, and replacing gorse hedge on southern boundary by post-and-wire fence.

CALCIUM DOMAIN.

Sections Nos. 16 and 17, Block I, Town of Calcium. Area, 3 roods 36 perches.

Improvements now on domain : Fences and gate. The domain provides access to the public hall, and is also used as a grazing-ground for schoolchildren's horses. Improvements are effected voluntarily.

CLIFDEN DOMAIN.

Section No. 5, Block I, Lillburn Survey District. Area, 73 acres 3 roods 3 perches.

Work done during year : Racecourse ploughed and formed, and ditches dug. Improvements now on domain : Racecourse, draining, and clearing. Used for picnics and sports. Proposed operations for ensuing year : Erecting gate and fencing, and sowing grass.

CROYDON BUSH DOMAIN.

Sections Nos. 819 and 885, Block LXIX, Hokonui Survey District. Area, 430 acres and 30 perches.

This domain is in native bush, and is used for picnics. The eastern boundary is substantially fenced.

DIPTON DOMAIN.

Section No. 3, Block X, Town of Dipton. Area, 5 acres.

Work done during year : Double row of trees planted down the northern and southern sides of domain, and seats procured. Improvements now on domain : Fences, trees, shelter-shed and outhouses, concrete well, tennis-court, and seats. Used for sports and picnics. A few trees will require to be planted where others have failed. The Board proposes to erect a dressing-room as soon as funds are available.

FORTROSE DOMAIN.

Section No. 42, Block IV, Town of Fortrose. Area, 10 acres.

Work done during year : Trees in plantation topped and others trimmed, fences repaired, and ground levelled by harrowing and rolling. Improvements now on domain : Three acres plantation, fences, hedges, and hut. Used for sports and picnics. Proposed operations for ensuing year : Further levelling.

GORE DOMAIN.

Situated in Towns of Gore and East Gore. Area, 92 acres 3 roods 32 perches.

During the year marked progress has been made in laying out ornamental gardens. The East Gore portion has also been cleared, and planting will be commenced in the spring. Improvements now on domain : Fencing, draining, ornamental gardens, three pavilions, and plantations. Used as a pleasure resort, and for bowls, tennis, football, and cricket. Proposed operations for ensuing year : Laying down lawns, and planting trees after gorse and broom have been grubbed and burnt.

HAPPY VALLEY DOMAIN.

Section No. 7, Block III, Waikaia Survey District. Area, 55 acres 2 roods.

Work done during year : Erection of 32 chains fencing commenced. Improvements now on domain : Fences, racing-track, and grassing. Used for sports, cricket, football, and racing. Proposed operations for ensuing year : Completing fencing.

HIRSTFIELD DOMAIN.

Sections Nos. 1, Block X, 4, Block XI, and 1, Block XVII, Town of Hirstfield. Area, 23 acres and 24 perches.

Work done during year: Gates repaired and ashes put down. Improvements now on domain: Fences, hedges, plantation, shelter-shed, and conveniences. Used for sports, cricket, football, picnics, and general recreation; portion leased for grazing. Proposed operations for ensuing year: General maintenance and improving the reserve near the beach.

HOWELL'S POINT DOMAIN.

Portions of Sections Nos. 22, 23, 24, 25, 26, 27, and 28, Block II, and Sections Nos. 46, 47, and 48, Block I, and 20, Block II, Jacob's River Hundred. Area, 105 acres 3 roods 30 perches.

Improvements now on domain: Thirty-nine chains fencing. Used for picnics.

LIMEHILLS DOMAIN.

Sections Nos. 1 to 7 and 9 to 17, Block IV, Town of Limehills. Area, 4 acres 1 rood 6 perches.

Improvements now on domain: Fences, 7 chains drains, trees, shed, and tennis-court. Used for cricket, football, and tennis. Proposed operations for ensuing year: Erecting 10 chains fencing.

LUMSDEN DOMAIN.

Sections Nos. 1 to 6, Block XXIII, Town of Lumsden. Area, 19 acres 1 rood 4 perches.

Improvements now on domain: Fences, pavilion, quarter-mile running-track, and plantation. Used for sports and picnics.

MAKAREWA DOMAIN.

Section No. 1, Block VIII, Town of Makarewa. Area, 13 acres and 18 perches.

Leased on improvement conditions. Improvements now on domain: Ten acres cleared and in grass. Used for general recreation. Proposed operations for ensuing year: Forming drains and watercourses.

MATAURA DOMAIN.

Sections Nos. 39, 40, and 41, Block XVII, Town of Matura Bridge, and 13, Block XII, Town of Matura. Area, 18 acres 1 rood 18 perches.

Work done during year: Two-story pavilion, comprising grandstand and two dressing-rooms, erected. Improvements now on domain: Fences, trees, and pavilion. Thirteen acres leased on improvement conditions.

OMAU DOMAIN.

Section No. 69, Block V, Campbelltown Hundred. Area, 158 acres 2 roods 29 perches.

Not used by the public. Covered with native bush, which is being protected.

OTAUTAU DOMAIN.

Section No. 5, Block II, Aparima Hundred. Area, 63 acres 2 roods.

Work done during year: Willows planted. Improvements now on domain: Fencing, drains, trees, and grassing. Leased for grazing. Proposed operations for ensuing year: Forming road into domain.

PUKERAU DOMAIN.

Sections Nos. 8, 9, 10, and 11, Block V, Town of Pukerau. Area, 4 acres.

No improvements effected during year. Improvements now on domain: Fences and plantation. Used for cricket, picnics, and football. Proposed operations for ensuing year: Repairing fences.

RIVERTON DOMAIN.

Sections Nos. 18, 19, 21, 22, 23, and 24, Block XXV, Jacob's River Hundred. Area, 11 acres 1 rood 34 perches.

Improvements now on domain: Twenty-six chains close weather-board fence, plantations, cottage, caretaker's hut, and ticket office. Used for cattle-shows, sports, picnics, football, and cricket.

SOUTH INVERCARGILL DOMAIN.

Section No. 33A, Town of Seaward Bush. Area, 2 acres 2 roods 35 perches.

Improvements now on domain: Fences. Used as a playground for children.

TE ANA DOMAIN.

Section No. 48, Block VII, Waiau Survey District. Area, 2 acres and 29 perches.

This domain is under the control of the Tourist Department. It contains some caves, and is used as a scenic reserve.

TOKANUI DOMAIN.

Sections Nos. 9 to 15, Block II, Town of Tokanui. Area, 4 acres 3 roods 19 perches.

Work done during year: Noxious weeds cut, rabbits kept down, and ploughing and cropping done. Leased.

WAIKAIA DOMAIN.

Block IV, Town of Waikaia. Area, 5 acres 2 roods.

Work done during year: Fences repaired.

WINTON DOMAIN.

Sections Nos. 1 to 5, 7 to 12, 17 to 22, and 24 to 28, Block IX, and 1 to 5, 7 to 13, 17 to 23, and 25 to 29, Block X, Town of Winton. Area, 11 acres 2 roods.

Improvements now on domain: Buildings, two tennis-courts, fences, trees, seeds, stumping, and draining. Used for general recreation, plantation purposes, and grazing.

WINTON TOWN BELT DOMAIN.

Sections Nos. 1 and 32, Block XI, 1 and 27, Block XII, 1 and 23, Block XVI, 1 and 24, Block XVII, and 1 and 24, Block XVIII, Town of Winton. Area, 2 acres 2 roods.

Improvements now on domain: Fourteen chains fences and $\frac{1}{2}$ acre plantation. Leased for grazing; an area has been resumed for plantation purposes.

WYNDHAM DOMAIN.

Section No. 66, and a lagoon in Block VI, Town of Wyndham. Area, 25 acres.

Work done during year: Noxious weeds eradicated and trees cleaned. Improvements now on domain: Fences, plantation, shrubs, flowers, and drains. Used as a pleasure resort. Proposed operations for ensuing year: Planting trees, erecting fences, laying culvert, and maintaining plantation.

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NEW ZEALAND.

GEOLOGICAL SURVEY OF NEW ZEALAND:
PRELIMINARY REPORT ON THE TARANAKI OILFIELD.

By J. M. BELL, DIRECTOR OF THE GEOLOGICAL SURVEY.

Laid on the Table of the House of Representatives by Leave.

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SITUATION AND EXTENT.

THE Taranaki Petroleum Field is situated on the West Coast of the North Island, in the neighbourhood of the principal town of the Taranaki Land District—New Plymouth.

How far the petroleum-field extends is not yet known. Its limitations can probably be more or less roughly indicated as a result of the geological operations now in progress in this part of New Zealand, but its boundaries can be defined exactly only by systematic drilling undertaken as a result of that survey. From the known surface-indications it is thought that the oilfield may be found to extend at least as far east as Waitara, and as far south as a line running roughly from four or five miles south of Inglewood, through German Hill, to the coast. Most of this area is included within the survey districts of Waitara and Paritutu, or the area in which a geological survey is now being conducted.

TOPOGRAPHY.

The most striking physical feature in Taranaki is the splendid symmetrical cone of Mount Egmont, the crest of which is perpetually snow-clad. To the west the cone is flanked by a short range of high mammillated hills rising to a height of 4,387 ft., and known as the Pouakai Ranges. To the north and west of these rise to a height of 2,240 ft. the bush-covered hills known as the Patua or Katakahi Ranges. North of the ranges the land slopes in general gently to the sea to the northward and westward, and rises towards the eastward perceptibly to near and beyond the Waitara River. The land is rolling or undulating near the sea, but more hilly inland, especially towards the east. The surface forms part of the Wanganui Coastal Plain, more or less shrouded by volcanics, its irregularities being due to dissection by the numerous streams flowing mainly from the cone of Egmont, and draining either directly to the sea or by means of the Waitara.

The coast-line for many miles is flanked by low cliffs, marking the denudation of the plain by the sea. A few miles west of New Plymouth the volcanic hills, both on the mainland and on the islands in the sea—known as the Sugar Loaves—form part of an old dissected volcano, of earlier age than Mount Egmont.

GENERAL GEOLOGY.

As gathered from good surface outcrops in the neighbourhood of the Waitara River and rare exposures elsewhere, and by the records of the numerous boreholes occurring in different parts of the Taranaki Oilfield, we learn that all of the area now being considered is underlain by the same strata—namely, claystones (locally called “papa”), sandstones, fine conglomerates, and marls. These form part of a great series of rocks which extends northwards, southwards, and eastwards, and which, as judged from the section between Waitara and Te Kuiti, consists in descending order of claystones, sandstones, fine conglomerates, marls, limestones, claystones, and sandstones with coal-seams. Pending a more exact classification by the survey now being conducted in the area, this series must merely be classified as Tertiary in age.

The Tertiary rocks lie generally almost flat or dip at very low angles. They are thought to form part of a great monoclinal fold, dipping southerly and westerly from the Mokau country. Minor cross-swells in the form of anticlines and synclines are in evidence in places, and are thought to be of sufficient importance to markedly influence the position of subterranean reservoirs of petroleum. The Tertiary strata, too, have been considerably broken in places by faults—structural breaks which direct the movements of petroleum and allied products from depths beneath the surface.

Overlying the Tertiary rocks is a coating of volcanic material of varying thickness in various parts of the area under review. It consists petrologically mainly of semi-basic volcanic rocks, and occurs as tufas, agglomerates, and lava flows. Much of this material, it is believed, issued from the old dissected lava cone now seen in the Sugar Loaves and either from Mount Egmont or the more ancient vent from which that volcano rose, but probably some of it emanated from fissures in the surface elsewhere.

Near the sea-coast, especially in the neighbourhood of the Sugar Loaves, occur black-sand beds, generally unconsolidated, but in places more or less cemented by iron-oxide. The beds lie in general horizontal, but exhibit false bedding. They show beds composed mainly of black-sand—ilmenite, magnetite, and titanite—interstratified with beds consisting chiefly of lighter material (quartz sand, felspathic sand, &c.). The black-sand beds are lensoid in shape, and are inconstant both in horizontal and vertical extension. Concentration of the heavier and richer material is constantly proceeding as the result of wind-and-wave action. Thus are produced the heaps of black-sand which collective amount to thousands of tons. These will ultimately be of economic value.

BRIEF HISTORY OF THE FIELD.

It will be impossible in the compass of a paper so brief as this report to give a full description of the various vicissitudes through which the petroleum industry in Taranaki has passed. However, it will be necessary to briefly outline its history in order to appreciate what has been accomplished, and to understand the reasons for the choice of locations of existing bores.

Seepages of petroleum were noted by Dr. Dieffenbach as far back as 1839, near the present site of the breakwater. No attempt, however, at boring for the source of this natural product was made until the end of 1865, when exploration in a primitive way was commenced. A number of wells were drilled in the vicinity of the seepages during the course of the three succeeding years, the deepest being 650 ft. Though at times during these early efforts small quantities of petroleum were obtained, the results were considered so discouraging that twenty years elapsed before renewed efforts were made to exploit the oilfield. In 1888, in great part through the instrumentality of the Hon. Oliver Samuel and the late Sir Julius Vogel, a company was organized in London, which continued operations for about two years. A bore was put down at the rear of the breakwater to a depth of 915 ft. (some authorities say 875 ft.), and a small amount of oil was obtained. Then, for some reason, the company stopped operations, despite the fact that Mr. Booth, the driller of the well, declared that the indications were highly favourable. In 1894 a syndicate known as the New Plymouth Petroleum Company was organized by Mr. Samuel, who remained its moving spirit for some years, during which some eight bores were put down. Of these, the first was put down to a depth of 1,100 ft., within 8 ft. of Booth's drill-hole, and small amounts of oil were raised. The second was sunk on Mr. Mace's farm, at the head of the Herekawa Stream. This bore, called No. 3, was sunk to a depth of 1,534 ft. Not much oil was seen, but large quantities of gas were encountered. The third borehole (known as No. 5) was situated on Putt's farm, on the Spotswood Road. It was sunk to a depth of 2,050 ft., but without the discovery of any favourable indications. The fifth one was somewhat farther inland, being located on Mr. H. Okey's farm, on the Franklyn Road. It was found so difficult to penetrate a mass of loose kidney-shaped stones occurring near the surface that a depth of only 302 ft. was drilled. The sixth bore sunk by the syndicate was on Mr. Veale's farm, some 30 chains from the last site. Drilling was continued by the New Plymouth Petroleum Company to a depth of 1,220 ft., and later by the present Taranaki Petroleum Company to a depth of 1,335 ft. The seventh drill-hole (No. 8 of the Samuel syndicate) was located at the upper end of Honeyfield's farm, Moturoa. It was sunk to a depth of 2,052 ft., but without the discovery of any very encouraging prospects. The eighth bore was situated some 80 ft. from the third borehole put down (called No. 4 by the New Plymouth Petroleum Company), and was sunk to 1,055 ft., when the plant was again moved on to the site of the third bore, which was now continued to a depth of 1,976 ft.

Somewhat previously to these later works, Mr. Samuel's syndicate had dissolved, and their rights, plant, &c., were purchased by Mr. Alexander. He conducted the later operations with a smaller number of shareholders, but eventually closed down, and sold his interests to an Adelaide syndicate, which sent Mr. George Fair to New Plymouth to prosecute further boring in 1904. The first borehole put down was known as the Birthday bore, or the New No. 1. This is situated on Mr. W. J. Honeyfield's property at Moturoa. After getting several small flows of oil the Adelaide syndicate failed to obtain further capital, and went into liquidation. Mr. Fair, however, being sanguine that deeper down were more extensive pools of petroleum, managed to interest a syndicate of local gentlemen, who formed the Moturoa Petroleum Company, and the bore was continued. The bore was sunk to a depth of about 2,230 ft., when, in May, 1906, a fair quantity of oil was obtained, and the ever-troublesome water said to be satisfactorily shut off. From this comparative success dates the inauguration of the various other companies still, or until recently, operating in the field. The principal of these are the Moa Petroleum Company, Ltd.; the Inglewood Oil Boring and Prospecting Company, Ltd.; the Standard Oil Company of New Zealand, Ltd.; the Taranaki Oil and Freehold Company, Ltd.; the Bonithon Company, Ltd.; and the New Plymouth Petroleum Company, Ltd.; each of which has put down one borehole, mention of which will be made later in this report. At the same time the Moturoa Petroleum Company underwent reorganization, and has continued operations under the name of the Taranaki

Petroleum Company, Ltd. In addition to No. 1, mentioned above, three new boreholes have been drilled, known as No. 2, No. 4, and No. 5 respectively; while another, No. 3, was continued on the site of the old No. 4 of the Samuel syndicate (the third borehole sunk by that company).

DESCRIPTION OF NATURAL PETROLEUM-SEEPAGES AND GAS-EMANATIONS.

Petroleum oozes out along the beach just east of the breakwater at Moturoa, and this was the indication which led to the drilling in the immediate neighbourhood. No very definite spring from which this oil issues can be located, but it is believed that it comes from a crack or break in the underlying rocks 50 ft. or more in length, or from the upturned edge of these strata resting against the hard rocks of the Sugar Loaves. From this source it would easily well up through the loosely consolidated overlying tufa. However, only very small quantities ever reach the surface—merely traces here and there beneath the boulders on the beach.

A scum of petroleum is frequently seen on the surface of the sea near the breakwater, when the bottom is being dredged.

Gas issues somewhat intermittently in two creeks on Laurent's property near the Carrington Road. As both streams are very muddy and flow over boggy ground, it is thought that the bubbles may merely be marsh-gas, due to decomposition processes near the surface, and not emanating from a deeper source.

Higher up the Carrington Road, above the bore of the Standard Oil Company of New Zealand, and on the property of Mr. A. S. Petch, a number of gas-emanations appear on a small creek, a tributary of the Huatoki. Two (about one chain apart) are especially conspicuous. The upper issues on the edge of the stream on the left side, while the other bubbles forth in a small pool of water filling an artificial excavation. When lighted both burn vigorously for a few minutes, with almost a foot of flame of a yellowish colour. When first discovered and somewhat opened out, the upper jet of gas is said to have burned continuously for ten days.

Further ebullitions of gas on a smaller scale appear on the Huatoki above and below the entrance of the small stream above mentioned. Much of the surface soil of this locality is composed of a curious resin-coloured peat (?), but I am not of the opinion that such strong flows of gas could be derived from this source. They are probably of more deep-seated origin.

About three-quarters of a mile lower down the Huatoki Valley, on a tributary entering on the right side, other jets of gas appear like those on Petch's farm, and apparently almost equally strong. Here some advantage has been taken of the gas, a roughly made cone being placed over the vent to concentrate the gas and give a constant flame when necessary for boiling water, &c., by the men working in the neighbouring fields.

Still lower down the Huatoki Valley, about half a mile from the right bank of its tributary known locally as the Huatokiti, and on the property of Mr. Grooby, Franklyn Road, there is a very strong ebullition of gas issuing on the edge of a tiny puddle of water in an artificial excavation in tufa. The jets flow from several small cracks occurring in an area about 18 in. square, giving when lighted a strong flame 18 in. or 2 ft. in length, which burns without cessation unless somewhat violently extinguished.

Near the Manganui Stream, east of Inglewood, there are several gas-emanations. One, near the Norfolk Road, was not seen by the writer, but it is said to be of considerable dimensions. Somewhat farther south, on the property of Joseph Butler, there occurs on the left bank of the Maungamawhetei Stream—a tributary of the Manganui—a pronounced outflow of gas, issuing from a crack a few inches long. This jet formerly flowed out on the bank of the stream, but now the main one issues at the inner end of an artificial cut at some 10 ft. from the water's edge, though minor jets appear between this point and the water. The flame which rises when the principal jet is lighted is strong and well defined, burning to a height of about 18 in., with an orange flame, and said formerly to have risen to fully 4 ft. Above these are other ebullitions of gas for about 50 ft. up the stream, and all are fairly strong emanations issuing from consolidated tufa. This gas and that on Grooby's property are probably the most powerful in the district, and it seems remarkable that they are not utilised for household purposes by the neighbouring farmers.

DESCRIPTION OF THE PRINCIPAL EXISTING BORES.

The Taranaki Petroleum Company, which, as seen in a previous paragraph, is operating at Moturoa, has some five bores, numbered from 1 to 5. No. 1 is what is known generally as the Birthday Well. Small but promising quantities of oil were obtained in Nos. 1, 2, and 3. No. 4, the most easterly well, was drilled to a depth of 1,600 ft., but not a trace of oil or gas was found. No. 5 bore was merely started, being sunk to a depth of only 40 ft.

According to the manager, Mr. W. E. Simpson, the depth of No. 1 borehole at the time of the writer's visit (28th October, 1909) stood at 2,345 ft. The bore has yielded small quantities of oil at various times, but at exactly what depths could not be ascertained. When the petroleum-pool was first pierced the oil rose with violent pressure, and was for a short time a gusher, but now it is purely a pumping proposition. The bore is said to be in a very bad state, the case being bent and even parted, and the hole clogged. It is difficult to ascertain exactly what amount of oil has been obtained from the bore altogether, but the quantity obtained by the present company has not been commercially important.

The No. 2 bore, according to the manager, was at a total depth of 2,346 ft. at the time of the writer's visit. Gas is said to have been struck at 1,500 ft., at 2,183 ft., at 2,192 ft., and at 2,205 ft. A stratum containing oil accompanied by large quantities of salt water was pierced at 2,209 ft. in sandstone, and somewhat lower down another flow was encountered. For some time the oil pumped amounted to ten barrels a day, and was running at that rate when the hole was closed down. The daily quantity was, however, very irregular, being sometimes only four barrels, or even less, and some days much

more, depending apparently on the gas-pressure. It is very difficult to estimate the quantity of oil so far obtained from the well. The amount, however, is said to have been about 30,000 gallons.

Great difficulty was experienced in No. 2, as well as in the other bores, in shutting off the water, and with caving mud and sand. Six-inch casing was used in the hole to a depth of 2,114 ft., and 5 in. to a depth of 2,246 ft.

No. 3 well was the only hole from which oil was flowing in any quantity at the time of the writer's visit. When closed down for some hours, the pressure of gas was sufficient to bring to the surface a few barrels of oil mixed with water, which flowed with considerable force through a 2 in. pipe. It will be remembered that this No. 3 well is on the site of the No. 4 well of the Samuel syndicate (the third one sunk by that company), and had by them been put down to a depth of 1,976 ft. The present company have continued the well to a depth of 2,617 ft. (with 6 in. casing to a depth of 2,538 ft., and 5 in. to a depth of 2,540 ft.). A few barrels of oil were obtained at a depth of 2,200 ft., but the greatest flow came from a stratum between 2,568 ft. and 2,574 ft. It is thought that by pumping this well might be made to yield a flow of at least ten barrels per day. A considerable quantity of oil has been obtained from the well, but unfortunately no estimate of the amount obtained is available.

The Bonithon bore, the deepest drill-hole on the field, was sunk to a depth of 3,004 ft., but without striking either oil or gas, though a strong flow of pure fresh water was encountered.

The Taranaki Oil and Freehold Company's bore stood at 1,389 ft. when visited. The drill-hole is well cased—15½ in. tubing to a depth of 200 ft., 12 in. to a depth of 777 ft., then 9 in. to a depth of 1,287 ft. Traces of oil are said to have been encountered in the hole, but no more.

At the time of inspection the Standard Oil Company of New Zealand bore stood at 2,500 ft., with 8 in. casing to a depth of 2,300 ft. A little oil is said to have been met with at 1,300 ft. and at 2,300 ft. When visited a new casing was being sunk, and had just reached the lower depth at which oil is stated to have been obtained. Thus the writer was able to see a marked impregnation of oil in the comminuted clay brought up by the sand-pump. The plant at this drill-hole is in excellent shape, and well equipped.

The New Plymouth Petroleum Company's borehole is now closed down. A depth of 1,060 ft. was attained. At that depth it was reported that there were good indications of oil and gas, and that the tools came up dripping with oil.

The Moa Petroleum Company's bore at Inglewood, sunk to a depth of 460 ft., is now closed, and certain of the tools formerly employed are in the bottom of the hole. The site was chosen because of the existence of a fairly strong flow of inflammable-gas bubbles issuing in a neighbouring stream. Considerable gas is said to have been encountered in the borehole.

The Inglewood Oil Boring and Prospecting Company's bore was drilled to a depth of 2,500 ft. No oil was encountered, though there is a strong ebullition of gas, which was ignited and burned with a strong flame at the time of inspection. In the hole, 12 in. to 13 in. riveted casing was used to 80 ft., 10 in. to 300 ft., 8 in. to 1,200 ft., and 6 in. to the bottom. The hole is now abandoned and the derrick dismantled, but the machinery and gear still remain, and appear to be in good repair.

Records of several of the bores are unobtainable or very incomplete, as will be seen from a perusal of the appended logs. Owing to the diversity in the nomenclature of the rocks by the various log-chroniclers, we have endeavoured to reduce the names to one standard (those in common practical or scientific use, though not necessarily the local terms), in order to obtain uniformity.

LOGS.

TARANAKI PETROLEUM COMPANY.

No. 3 Bore.

(NOTE.—All the available notes as to the character of the strata are here recorded.)

241 ft.	..	..	First note as to the strata encountered records a "hard streak"—probably a calcareous concretion in "papa clay."
730 ft. - 744 ft.	..	..	Strata very hard.
1,824 ft.	..	..	"Hard streak."
1,890 ft.	..	..	Some oil was pumped from the surface of the water.
2,020 ft. - 2,045 ft.	..	..	Blue clay and sand.
2,045 ft.	..	..	"Hard streak."
2,050 ft. - 2,094 ft.	..	..	Very soft blue clay and sand.
2,094 ft. - 2,126 ft.	..	..	Blue clay containing a "hard streak."
2,128 ft.	..	..	"Small seam of oil."
2,133 ft.	..	..	Small quantity of salt water—in clay.
2,137 ft.	..	..	Gas occurred.
2,178 ft. - 2,244 ft.	..	..	Clay with a "hard streak."
2,289 ft.	..	..	Gas and oil.
2,298 ft.	..	..	Blue clay only is reported.
2,335 ft.	..	..	Harder rock.
2,337 ft. - 2,398 ft.	..	..	"Granular limestone."
2,398 ft. - 2,411 ft.	..	..	Coarse sandstone.
2,570 ft. - 2,574 ft.	..	..	"Gas very strong."
2,600 ft. (about)	..	..	Very soft sandstone.

No. 4 Bore.

(NOTE. All available notes as to character of strata are here recorded.)

46 ft.	..	..	" Hard sandstone," probably a tuff.
61 ft.	..	..	Loose boulder, probably volcanic.
67 ft. 6 in. - 73 ft. 2 in.	..	..	" Basalt," probably a solid flow rock of andesitic character.
73 ft. 2 in. - 95 ft.	..	..	Loose boulders, probably volcanic.
95 ft. - 98 ft.	..	..	Apparently another solid flow rock.
197 ft. - 744 ft.	..	..	Sandy claystone (" papa "), with calcareous concretions (" hard streaks ") at 542 ft. and 652 ft.
744 ft. - 798 ft.	..	..	" Sand drift."
798 ft. - 1,139 ft.	..	..	Sandy claystone (" papa ").
1,139 ft. - 1,539 ft.	..	..	Claystone (" sticky papa ").
1,539 ft. - 1,678 ft.	..	..	Sand with a good deal of water.

STANDARD OIL COMPANY OF NEW ZEALAND.

Bore.

Surface - 10 ft.	..	..	Red volcanic soil.
10 ft. - 28 ft.	..	..	Agglomerate (" conglomerate ").
28 ft. - 34 ft.	..	..	Hard-caked black-sand.
34 ft. - 52 ft.	..	..	Coarse sand and boulders.
52 ft. - 58 ft.	..	..	Sand.
58 ft. - 66 ft.	..	..	Scoria and gravel.
66 ft. - 98 ft.	..	..	Sand, gravel, and silt.
98 ft. - 100 ft.	..	..	Boulders and clay.
100 ft. - 165 ft.	..	..	Sand, silt, boulders, and scoria.
165 ft. - 176 ft.	..	..	Sand.
176 ft. - 420 ft.	..	..	Gravel, sand, and boulders.
420 ft. - 487 ft.	..	..	Gritty sandstone with concretions (" hard streaks ").
487 ft. - 1,205 ft.	..	..	Claystone with occasional concretions (" hard streaks ") in places.
1,205 ft. - 1,250 ft.	..	..	Sand and gravel.
1,250 ft. - 1,563 ft.	..	..	Sandy claystone varying a good deal in the amount of sand. Shows a trace of oil at 1,325 ft., and contains shells at 1,469 ft.
1,563 ft. - 1,610 ft.	..	..	Soft sandstone.
1,610 ft. - 1,640 ft.	..	..	Claystone.
1,640 ft. - 1,660 ft.	..	..	Soft sandstone with gravel and shells.
1,660 ft. - 1,677 ft.	..	..	Claystone with " hard streaks."
1,677 ft. - 1,689 ft.	..	..	Soft sandstone with a few boulders.
1,689 ft. - 1,840 ft.	..	..	Claystone with gravel and shells.
1,840 ft. - 2,313 ft.	..	..	Claystone more or less sandy.
2,313 ft. - 2,376 ft.	..	..	Oil and gas in a fine sand.
2,376 ft. - 2,494 ft.	..	..	Fine sand with " hard streaks."
2,494 ft. - 2,501 ft.	..	..	Clay, gravel, and shells.
2,501 ft. - 2,510 ft.	..	..	Fine sand.

INGLEWOOD OIL BORING AND PROSPECTING COMPANY.

Bore.

Surface - 10 ft.	..	..	Tufa.
10 ft. - 69 ft.	..	..	Soft clay and decomposed agglomerate (apparently).
69 ft. - 250 ft.	..	..	Hard sandstone—some escape of gas at times.
250 ft. - 292 ft.	..	..	Claystone.
292 ft. - 300 ft.	..	..	" Strata of volcanic origin." Increase in gas.
300 ft. - 318 ft.	..	..	Fine sandstone.
318 ft. - 355 ft.	..	..	Agglomerate (" conglomerate ").
355 ft. - 390 ft.	..	..	Same volcanic formation.
390 ft. - 395 ft.	..	..	Fine grey sandstone.
396 ft. - 470 ft.	..	..	Agglomerate (" conglomerate ") and sand, varying in hardness in different parts.
470 ft. - 750 ft.	..	..	Claystone (papa).
750 ft. - 800 ft.	..	..	Sandstone containing much water.
800 ft. - 1,278 ft.	..	..	Claystone with occasional traces of gas.
1,278 ft. - 1,600 ft.	..	..	Sandy claystone.
1,600 ft. - 1,640 ft.	..	..	Heaving sand.
1,640 ft. - 2,425 ft.	..	..	Claystone with a few traces of gas, and getting harder lower.
2,425 ft. - 2,460 ft.	..	..	Claystone—caving.

BONITHON BORE.

Surface - 216 ft.	..	..	Clay and agglomerate, getting hard below 64 ft.
216 ft. - 315 ft.	..	..	Very sticky papa, sandy claystone (" papa ").
315 ft. - 320 ft.	..	..	Hard sandstone.
320 ft. - 740 ft.	..	..	Sandy claystone (" papa "), sand, and gravel.

BONITHON BORE—*continued*.

740 ft. – 1,508 ft.	..	Sandy claystone, with "hard streaks."
1,508 ft. – 1,774 ft.	..	Sand and gravel.
1,774 ft. – 1,950 ft.	..	Claystone, with flow of water.
1,950 ft. – 2,086 ft.	..	Very sticky ("papa") claystone, with slight flow of gas.
2,086 ft. – 2,091 ft.	..	Grey sandstone.
2,091 ft. – 2,411 ft.	..	Claystone.
2,411 ft. – 2,422 ft.	..	Soft sandstone.
2,422 ft. – 2,520 ft.	..	Claystone.
2,520 ft. – 2,521 ft.	..	Hard sandstone.
2,521 ft. – 2,600 ft.	..	Claystone.
2,600 ft. – 2,610 ft.	..	Sandstone.
2,610 ft. – 2,683 ft.	..	Claystone.
2,683 ft. – 2,748 ft.	..	Soft sandstone.
2,748 ft. – 2,763 ft.	..	Gas (60 lb. to square inch).
2,763 ft. – 3,004 ft.	..	Sandstone.

TARANAKI OIL AND FREEHOLD COMPANY.

Surface – 6 in.	..	Surface mould.
6 in. – 55 ft. 3 in.	..	Tufaceous clay.
55 ft. 3 in. – 198 ft. 3 in.	..	Agglomerate showing varying degrees of coarseness.
88 ft.	..	A layer of carbonised wood.
112 ft.	..	Slight show of oil.
198 ft. 3 in. – 218 ft.	..	"Very hard rock," possibly a lava flow.
218 ft. – 239 ft.	..	Clay.
239 ft. – 255 ft.	..	Agglomerate—base of volcanic rocks.
255 ft. – 588 ft.	..	Sandy claystone, with "hard streaks" (concretions) at intervals, and with traces of oil near them at 449 ft., 476 ft., 506 ft., 513 ft., 579 ft., and 588 ft. A band of shell sand at 328 ft., and hard mudstone containing shells at 375 ft.
588 ft. – 603 ft. 6 in.	..	Sandstone, with show of oil.
604 ft. – 657 ft. 2 in.	..	"Rock," with good show of oil.
657 ft. 2 in. – 659 ft. 5 in.	..	Gravel.
659 ft. 5 in. – 667 ft. 5 in.	..	Papa.
667 ft. 5 in. – 669 ft. 6 in.	..	Gravel.
669 ft. 6 in. – 740 ft.	..	Hard papa.
670 ft.	..	Carbonised plant-remains.
672 ft.	..	Quartzose gravel containing water.
740 ft. – 860 ft.	..	Greenish argillaceous sandstone—very good show of oil.
860 ft. – 964 ft. 6 in.	..	Sandy claystone, becoming less sandy downwards.
964 ft. 6 in. – 980 ft. 3 in.	..	Sandstone, with traces of oil.
980 ft. 3 in. – 1,095 ft.	..	Greenish petroliferous sand.
1,095 ft. – 1,105 ft.	..	Calcareous sandstone.
1,105 ft. – 1,160 ft.	..	Fine sharp sand.
1,160 ft. – 1,162 ft.	..	Greenish micaceous calcareous sandstone.
1,162 ft. – 1,201 ft.	..	Fine sharp sand.
1,201 ft. – 1,208 ft.	..	Hard sandstone.
1,208 ft. – 1,240 ft.	..	Very fine "dead" sand.
1,240 ft. – 1,256 ft.	..	Harder rock—probably calcareous concretions.
1,256 ft. – 1,262 ft.	..	Lignite (but probably not a solid bed).
1,262 ft. – 1,284 ft.	..	Fine sharp sand, with three thin streaks of carbonaceous matter.
1,284 ft. – 1,289 ft.	..	Lignite, with thin streaks of coal.
1,289 ft. – 1,385 ft.	..	Fine sand, with very hard boulders (concretions).

NEW PLYMOUTH PETROLEUM COMPANY, LTD.

Surface – 40 ft.	..	Clay.
40 ft. – 70 ft.	..	Decomposed agglomerate.
70 ft. – 185 ft.	..	Boulders and agglomerate.
185 ft. – 190 ft.	..	"Very hard blue rock"—probably a lava flow.
190 ft. – 260 ft.	..	Boulders and agglomerate.
260 ft. – 270 ft.	..	Loose sand and gravel.
270 ft. – 340 ft.	..	"Hard blue rock."
340 ft. – 375 ft.	..	Large boulders.
375 ft. – 510 ft.	..	Hard sandstone, showing soil.
510 ft. – 515 ft.	..	Light-blue papa.
515 ft. – 525 ft.	..	Conglomerate and big hard boulders.
525 ft. – 593 ft.	..	Sandy claystone ("papa") and boulders, showing oil.
593 ft. – 618 ft.	..	Hard boulders, showing oil.
618 ft. – 637 ft.	..	Hard sandstone, showing gas and oil.
637 ft. – 640 ft.	..	Big boulders, showing oil and gas.
640 ft. – 651 ft.	..	Sandy claystone and big boulders, showing oil and gas.

NEW PLYMOUTH PETROLEUM COMPANY, LTD.—*continued.*

651 ft. – 681 ft.	..	Heaving sand, which rises 75 ft. to 90 ft.
681 ft. – 700 ft.	..	Soft caving shale.
700 ft. – 815 ft.	..	Sticky blue mudstone, showing gas and oil.
815 ft. – 862 ft.	..	Fine heaving sand, showing gas and trace of oil.
862 ft. – 944 ft.	..	Hard sandstone, showing oil.
944 ft. – 1,000 ft.	..	Boulders and fine sand.
1,000 ft. – 1,060 ft.	..	Shale and sandstone, showing indications of oil.

QUALITY OF THE OIL AND GAS.

So far as known, the gas from the various jets around New Plymouth has not yet been analysed. It is apparently methane (CH_4), but on this point analyses will have to be made before certainty can be reached.

In 1906 a sample, said to have been obtained from the No. 1 borehole of the Taranaki Petroleum Company, was forwarded to the writer by the late Mr. George Fair. This sample contained—

	Per Cent.
Petroleum spirit below 150° C.	.. .. . 15.0
Water	.. .. . 1.4
Kerosene distilling between 150° and 300° C.	.. .. . 42.0
Lubricating-oil	.. .. . 20.3
Paraffin	.. .. . 13.3
Coke	.. .. . 5.0
Loss	.. .. . 3.0
	100.0

About the same time analyses were made by Professor Thomas H. Easterfield of oil from the same well. The results of his tests, and remarks thereon, are given below:—

	Per Cent.
Benzine distilling between 55° and 150° C.	.. .. . 20
Burning-oil distilling between 150° and 300° C.	.. .. . 40
Heavy oil for lubricating, 300° and 440° C.	.. .. . 37
Pitch	.. .. . 2
Loss	.. .. . 1
Total	.. .. . 100

“*Benzine.*—The crude benzine has a specific gravity of .764, was colourless, and had a pleasant odour. When redistilled it yielded 66 per cent. of naphtha boiling between 58° and 120° C.”

“*Burning-oil.*—The crude burning-oil had a slightly yellow colour. When redistilled it yielded water-white kerosene with only a faint bloom. The oil distilling between 150° and 270° had a specific gravity of .82. Treatment of this fraction with sulphuric acid and alkali scarcely affected the density of the oil, but removed practically the whole of the bloom. The lead-oxide test indicated the absence of sulphur-compounds. The kerosene is of greater density than ‘White Rose Oil,’ and shows a greater tendency to smoke when burnt in American lamps. This defect is also shown by Russian kerosenes, but is largely overcome by the practical manufacturer.”

“*Heavy Oil and Paraffin.*—The heavy oil sets at the ordinary temperature owing to the deposition of solid paraffin. The maximum amount of paraffin scale which I obtained was equal to 13 per cent. of the crude petroleum. After pressing and remelting, the scale showed a melting-point of 130° Fahr. The yield of paraffin-wax in a properly arranged distillery, fitted for cold filtration, would be greater than in a laboratory experiment. The melting-point of wax would also be raised by systematic sweating as carried out by the modern manufacturer.”

“*Lubricating-oil.*—The heavy oil filtered from the wax yielded by the usual acid and alkali treatment a reddish-brown oil of good appearance. The oil is a good lubricant: it was tested upon the crank-shaft bearings and in the high-pressure cylinder of a stationary engine, and gave complete satisfaction.”

The oil of boreholes Nos. 1, 2, and 3 may be described as a heavy oil, setting at ordinary temperatures to the consistency of vaseline (or even harder—depending on the temperature) owing to the large amount of contained paraffin. It is brownish in colour, with an occasional faint-green iridescence.

The oil obtained in the well of the Standard Oil Company of New Zealand has, so far as known, not yet been analysed. It is apparently not so heavy an oil as that at Moturoa, and is lighter in colour.

CONCLUSIONS AS TO THE FUTURE OF THE TARANAKI OILFIELD.

Up to the present, success can hardly be said to have been attained in the Taranaki Oilfield, and the question arises, what are the chances for the future? So many attempts have been made to obtain a payable well at Moturoa that one would naturally feel discouraged for the future were it not that in the writer's opinion a fairly definite reason can be given for the failures. Away from Moturoa drilling can scarcely be said to have yet been prosecuted sufficiently to properly test the field.

There can be no doubt that there are abundant surface indications. Petroleum-seepages have been actually seen by the writer only at Moturoa, though they have been reported from the Waitara River and elsewhere. Natural gas, as mentioned in a preceding paragraph, is widespread. Wherever this occurs in quantity there is a strong probability that it has ascended vertically from porous strata

below, which very likely—but not certainly—contain the other product of distillation of carbonaceous material—namely, petroleum.

As mineral waters nearly always accompany petroleum, mineral springs and the evidence of former mineral springs are to a limited extent favourable indications. Travertine, a deposit of a former mineral spring, occurs at several places in the area, notably at German Hill.

A loose porous stratum, such as a sandstone, a conglomerate, or a limestone, is ordinarily considered the most favourable situation for the occurrence of a large reservoir of petroleum, when this is capped by an impervious stratum such as a shale or a claystone. Interstratified claystones and sandstones have been pierced by the various drill-holes so far sunk; but it may be said that the sandstones, being generally fine-grained and argillaceous, are usually not sufficiently porous to contain much oil. It is thought that most of the small pools so far encountered are either in fissures in both sandstones and claystones, or are very minor impregnations in the more porous of the sandstone beds, and that the oil has arisen through fault-planes (which are widespread in this locality) from reservoirs more deep-seated than those so far pierced by the various bores.

A complete examination of the Tertiary strata so well exposed eastward and northward from Moturoa to the Mokau gives the observer a very fair idea of what may be expected in the drill-holes. Overlying the extensive Mokau coal-beds, the south-westerly extension of which, by coming in contact with volcanic heat or mere increase of heat towards the earth's interior, have been the source of the petroleum, are thick beds of porous green sandstones. It is thought that until these are cut by drilling no very extensive pool of oil will be struck, unless perchance a large fissure rising from great depths is reached above. Consequently it follows that, in the writer's opinion, the drill-holes so far put down at Moturoa are not sufficiently deep, and he would suggest that one hole be chosen, preferably No. 3 (as being the most westerly and consequently apparently the nearest to the source of oil), and pushed down until the porous stratum seen on the Mokau is encountered. It would be quite hypothetical in the present state of the geological survey of the oilfield to say at what depth this stratum will be reached, but it is hoped to obtain more definite knowledge on this point before our work in the locality is complete. Meanwhile the exploratory bore should be proceeding.

In the present state of our knowledge it seems to the writer that hopeful petroliferous country, in which boring might later be carried out with success, lies between the present No. 3 bore and the foot of the breakwater. Any bores, however, sunk in this locality should await the results of the deep trial bore—the continuation of No. 3—and when put down should be located at a sufficient distance from the foreshore to be uninfluenced by the sea.

Away from Moturoa all indications must be closely examined and carefully studied before sites for boreholes are chosen. Ordinarily the crest or near the crest of a faulted anticlinal fold is considered the most hopeful site for boring. To such a natural apex the oil would readily ascend through the faults till a porous stratum was reached, from which stratum further migration upward was prevented by an impervious roof.

It is thought that the geological survey will be able to reveal, especially towards the east of the field, these anticlinal crests, near which gas now issuing—evidently through fissures—suggests petroleum-pools beneath. However, the work has not yet advanced sufficiently to speak definitely on this point. In the eastern part of the area drilling would probably not necessarily have to be prosecuted to such depths as near Moturoa, since there is a general rise of the strata towards the eastward and northward.

It may be remarked in closing that, even with the greatest attention given to all geological details before selecting a borehole-site, there is danger that the lower part of the petroliferous strata encountered “may contain water instead of gas and oil; or may be calcified or silicified instead of being bitumenized; or that water has entered the outcrop of the strata at higher altitudes [than the borehole-site] and ascended through the formation, floating the oil to the surface and carrying the same to the other dip of the anticline” * than that on which the drill-hole is proceeding.

It is unfortunately true that theory and observations cannot be perfect, but they are immeasurably better than the mere guessing which alone can be said to have accounted for the choice of the sites of many of the Taranaki boreholes.

In the writer's opinion the chances for oil in Taranaki may in general be said to be as good as in any imperfectly tried field, and it is hoped that after the observations of the Survey are complete the industry will be pushed as vigorously as surface indications certainly seem to warrant.

6th December, 1909.

* See “The Genesis of Petroleum and Asphaltum in California,” by A. S. Cooper. Bulletin No. 16, Calif. State Mining Bureau.

1909.
NEW ZEALAND.

WANGANUI RIVER TRUST

(ANNUAL REPORT OF THE).

Presented to both Houses of the General Assembly by Command of His Excellency.

WANGANUI RIVER TRUST.

MEMBERS.—T. D. Cummins (Government nominee), Chairman; J. T. Hogan, M.P., Wanganui; G. V. Pearse, M.P., Patea; W. Ritchie, Chairman, Waitotara County Council; D. Mason, Chairman, Wanganui County Council; J. H. Keesing, President, Chamber of Commerce; C. E. Mackay, Mayor; T. B. Williams, W. G. Bassett, and J. T. Stewart, elected by the ratepayers of the Borough of Wanganui.

REPORT.

SIR,—

Wanganui, 31st March, 1909.

I have pleasure in reporting on the work performed and condition of the Upper Wanganui River for year ended the 31st March, 1909.

The conditions of the river and the weather for the improvement works have not been so favourable as in some past years for the economic prosecution of the work, still I venture to hope that you will consider the schedule of works completed show a good return for the expenditure.

It is pleasing to again be able to report that the benefit of the river improvement works have much assisted settlers both from Taumarunui downstream and from Wanganui to the newly opened country lying below Pipiriki, notably the Ahu Ahu, Te Tuhi, Ohotu, and Tauakira No. 2 Blocks. These lands are sparsely roaded, and much of the settlers' requirements are carried on the river-steamers.

The volume of tourist traffic has also been apparently satisfactory from Taumarunui to Wanganui.

The energies of the Trust have been mainly directed to the improvement of the channels in the upper reaches of the river, it having been found necessary to employ one party for a short period in maintaining the channel below Pipiriki. I would again emphasize the fact of the stability and permanency of the work now being undertaken; most of the walls constructed at the inception of the work are still intact. This more especially refers to the walls or groynes built of large boulders and rock in the lower part of the river. To overcome the difficulty found in the upper reaches of the river of obtaining suitable stone for constructing walls, these have been mostly built with shingle enclosed in wire netting, and, although certainly not so stable as stone, have achieved the purpose, and appear to have considerable life.

The steamer traffic has been fully maintained, without a single accident and without interruption.

Mr. J. T. Stewart will supplement this with a report made after personal inspection and observation.

The improvement works consist of construction of walls or groynes, the material of which has been stone where procurable, or shingle enclosed with No. 10 gauge wire netting of such mesh as was suitable for enclosing the shingle found in the locality, the nets being made by the Trust's employees. A considerable length of channel has also been cleared of snags and boulders, the net results being most satisfactory. The following schedule shows the walls completed, with the length of each. The number denotes the number of the rapid as shown on Mr. J. T. Stewart's plan of the river, published in parliamentary paper C.—15, 1908.

No.							
1.	Ngahuinga, No. 2 wall from R. B.	..	396 ft.	by 6 ft.	by 2 ft.	6 in.	
14.	Towhenua, wall from R. B.	..	321 ft.	„ 4 ft. 9 in.	„ 3 ft.	6 in.	
14.	„ (apron)	..	291 ft.	„ 3 ft.	„ 3 ft.		
16.	Tauteti, additions and repairs	..	26 ft.	„ 16 ft.	„ 4 ft.		
16.	„ new wall	..	26 ft.	„ 16 ft.	„ 4 ft.		
16.	„ wall from R. B.	..	222 ft.	„ 7 ft.	„ 3 ft.		
16.	„ No. 2 wall R. B.	..	239 ft.	„ 4 ft.	„ 3 ft.		
16.	„ (apron)	..	156 ft.	„ 3 ft.	„ 2 ft.	6 in.	
16.	„ cross-wall	..	228 ft.	„ 6 ft.	„ 3 ft.	6 in.	
16.	„ (apron)	..	126 ft.	„ 3 ft. 6 in.	„ 1 ft.	6 in.	

No.									
18.	Wairere, wall from R. B.	..	..	395 ft.	by 4 ft. 6 in.	by 2 ft. 9 in.			
19.	Pataua, wall from R. B.	..	..	491 ft.	„ 4 ft. 8 in.	„ 2 ft. 9 in.			
19.	„ wall from L. B.	..	..	243 ft.	„ 4 ft. 6 in.	„ 2 ft. 8 in.			
20.	Raparua, wall from R. B.	..	..	461 ft.	„ 5 ft.	„ 3 ft.			
20.	„ wall from L. B.	..	..	253 ft.	„ 5 ft. 6 in.	„ 4 ft. 10 in.			
20.	„ additions	..	..	..	..	..
23.	Taitaka, additions and repairs	..	..	74 ft.	„ 4 ft.	„ 2 ft.			
23.	„ wall from R. B.	..	..	40 ft.	„ 4 ft.	„ 3 ft.			
24.	Horoporoaki, wall from L. B.	..	..	360 ft.	„ 4 ft. 6 in.	„ 3 ft.			
24.	„ repairs and apron added to wall from R. B.	..	..	345 ft.	„ 3 ft.	„ 2 ft.			
28.	Wall from R. B.	..	..	583 ft.	„ 4 ft. 4 in.	„ 2 ft. 6 in.			
91.	Kahuitara, wall from L. B.	..	..	3,213 ft.	„ 5 ft. 2 in.	„ 3 ft.			
91.	„ wall from L. B.	..	..	198 ft.	„ 6 ft.	„ 3 ft.			
91.	„ (apron)	..	..	264 ft.	„ 3 ft.	„ 1 ft. 3 in.			
91.	„ wall from R. B.	..	..	396 ft.	„ 6 ft. 3 in.	„ 3 ft. 2 in.			
93.	Ohuraiti, wall from L. B.	..	..	649 ft.	„ 5 ft.	„ 3 ft. 4 in.			
233.	Below Pipiriki, wall from L. B.	..	..	594 ft.	„ 4 ft. 6 in.	„ 3 ft.			

This makes a total of 10,580 ft., or 160 chains 20 ft.

The walls under construction but not completed at date are: No. 33, Pouwhakamara; and No. 101, Otahapa.

The work at Tauteti (No. 16) has been the most difficult on the river, and it is satisfactory to say that a safe channel now exists in this previously difficult and dangerous place.

No. 101, Kahuitara, the reach below the houseboat at Ohura, has also been a heavy job, the river here being broad and shallow, necessitating walls totalling in length 3,213 ft.

There is still further work to be done in the upper reaches to facilitate navigation in low conditions of the river that occur in the summer months, and mostly when the tourist season is at its height and the steamer traffic taxed to its utmost.

I would urge that a sum of not less than £3,000 be placed on the estimates for the work in the ensuing season.

I am, &c.,

T. D. CUMMINS, Chairman.

W. C. Kensington, Esq., Under-Secretary for Lands, Wellington.

REPORT by JOHN STEWART, Member of the River Trust.

T. D. Cummins, Esq.,

Chairman Wanganui River Trust.

Wanganui, 20th May, 1909.

In the month of March, 1909, from the 7th to the 13th, I visited the River Trust works between Raorikia and Taumarunui, as requested by you.

The state of the river was favourable, the water being low, the gauge at Pipiriki showing 2 in. below the assumed low summer level.

In the river below Pipiriki maintenance has been attended to this season. A new stone training-wall has been put in from the left bank at the wide shallow near Ramahiku, some way below where the river-bank road from Upokongaro comes out to the river-side. Several other broad shallow runs might with advantage be similarly treated. In this lower river it is advisable to construct these walls of stone, which is generally available, as the shingle here, being small, is not so favourable for netting walls as it is in the upper reaches of the river. Generally in the upper river, also, stone walls are preferable where stones can be got at a reasonable outlay.

Between Pipiriki and Tangarakau Junction the principal work requiring attention is the improvement of the Upper Ngaporo Rapid, No. 189, which should be attended to next season as soon as the river gets low enough for favourable work. This applies also to some minor matters already noted, and to the general going-over of the river-channels from the Retaruke Junction down to Pipiriki, removing snags, stones, &c., which, although not involving heavy work, can only be done when the water gets low enough.

In the upper reaches between the Retaruke Junction and Taumarunui landing, a large amount of work has been done this season in constructing training-walls and removing boulders, &c., in the channels, and the river navigation has been much improved thereby. These works are detailed in the Chairman's annual report for this year. There are a good many places requiring similar attention to bring them up to the level of the general improvement done to the channels. Careful maintenance, in this portion of the river especially, will always be required. The foreman of works to the River Trust, Mr. A. Marshall, has carried out these works judiciously and with care and attention.

It was mentioned in a former report that the question of suitable boats for the navigation of these upper reaches was an important element. The proprietor of the river traffic service steamers has this year placed on the upper reaches what seems to be an eminently suitable boat. It is built of steel, and was constructed by Messrs. Yarrow and Co., of Glasgow, Scotland. Her dimensions are 63 ft. in length by 6 ft. 6 in. in width, and she has a draught, when light, of 9½ in.; with forty passengers, 16 in.; and with sixty passengers, 17 in. to 18 in. The power is an oil-engine of 45-horse power. She is open, with cross-seats, and a protective awning for wet weather. This class of boat appears very suitable for tourist traffic in the upper reaches of the river.

Besides the tourist traffic, there is a growing traffic in connection with the settlement of the lands adjoining the river on both sides. The opening-up of roads abutting at suitable places on the river is necessary to allow of this, and evidently much attention is being given by the Government to this matter.

Of these roads, there are the following already located and partly under construction or constructed (as yet they are chiefly horse-tracks, or what are commonly called 6 ft. tracks) :—

Approximate Distance from Wanganui by River, in Miles.	Roads.	Position near Rapids given on Map of River published in Parliamentary Paper C.—15, 1908.	Formation generally as a Horse-track or 6 ft. Track unless otherwise mentioned.
<i>On Left Bank of River.</i>			
142	Tunakotikoti ..	Rapid No. 8 ..	This not yet formed.
138	Makokomiko ..	„ No. 20 ..	Formed inland to railway-line.
137	Hikamutu ..	„ No. 22 ..	Formed nearly through.
132	Te Maire ..	„ No. 35 ..	Formed 5 or 6 miles in from river.
121	Kokakonui ..	„ No. 72 ..	Formed some miles in from river.
117	Kokakoriki ..	„ Nos. 80–81 ..	Formed through to near Raurimu, on railway-line.
110½	Mangaohutu ..	„ No. 97 ..	Formed for some miles in from river.
108½	Te Rata ..	„ No. 104 ..	Above Retaruke Junction, formed 3 or 4 miles in from river.
108	Retaruke Valley	Retaruke Junction ..	Formed, except some 3 miles of a gap. This is the principal line inland to railway.
67½	Arawhata ..	Rapid No. 186 ..	Not yet formed. This is located to the River Trust Endowment Block of 10,000 acres, which is now occupied.
55	Pipiriki–Ohakune	Pipiriki ..	A main dray-road to Raetihi and railway-line.
49	Otaranoho ..	Hiruharama ..	Jerusalem. Dray-road about 4 miles in from river.
40	Matahiwi–Ohotu	Rapid No. 212 ..	Formed into Ohotu, and joins Parapara–Raetihi Road.
26½	Pitangi ..	Near No. 229 ..	Formed about 4½ miles inland from river.
..	River Bank ..	On left bank of river, from near Rapid No. 236 upwards	This connects with the old road system near Upokongaro, and is formed, with some gaps, to about 30 miles from Wanganui.
<i>On Right Bank of River.</i>			
128	Te Aukopae ..	Near No. 52 ..	This goes inland to the settlements on the Ohura Valley, and is in use.
85	Tangarakau–Whangamomona	Tangarakau River Junction	Goes inland to the Whangamomona Settlements. This is formed as a dray-road for some miles from Whangamomona, and the remainder of the length is nearly completed as a horse-track to the Wanganui River.
45	A road-line from about opposite Ranana	Opposite Ranana ..	This goes into the upper part of the Ahu Ahu Settlements, and is not yet formed.
33	Ahu Ahu ..	Near Rapid No. 220	This is formed about 14 miles inland from the river.
14	Kauarapaoa ..	Near Raorikia ..	Formed in some miles from river.

The importance of continuing the location and forming of roads inland from the river-banks is very evident, viewing the Wanganui River as a main highway direct into the interior, and requiring these branch roads for settlement interests.

It is not superfluous to refer to the question of the preservation of the bush scenery along this tourist route. Last year I reported in detail on the existing state of the bush scenery along the whole river course in the River Trust district between Raorikia and Taumarunui (parliamentary paper C.—15, 1908). On the present trip I observed recent bush-burnings in both the upper and the lower river which have occurred since that report was made. This is likely to go on in an increasing ratio wherever the river-banks have not been secured as a public domain.

JOHN T. STEWART.

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NEW ZEALAND.

KAURI-GUM INDUSTRY

(REPORT ON) BY MR. GOW.

Return to an Order of the House of Representatives dated the 22nd October, 1909.

Ordered, "That there be laid before this House the report of Mr. Gow on the kauri-gum industry."—
(Mr. STALLWORTHY.)

REPORT.

SIR,—

17th November, 1908.

In accordance with the instructions contained in your memorandum of the 9th September last, I have to report that I proceeded to the Auckland gumfields districts, and beg to submit herewith the result of my investigations along the lines laid down by you.

During my visit to the fields I interviewed the majority of the wholesale gum-buyers, exporters, and various brokers in Auckland, the storekeepers on the fields, the executive members of the Auckland Gum-diggers' Union of Workers, and several of its branches, and also a great number of individual diggers and settlers at the principal fields, besides very many other persons who were able to throw any light on the conditions obtaining in connection with the digging and marketing of kauri-gum.

I went very fully and exhaustively into all matters connected with the industry with these persons; and, in addition to my remarks in reply to the specific questions contained in your memorandum, I have dealt with other matters which are considered by the residents of the fields as of great moment in connection with the present state of this very important but somewhat neglected industry.

(1.) THE NUMBER OF MEN EMPLOYED IN THE INDUSTRY

There are approximately about five thousand legitimate diggers, including Austrians, on the gumfields. By "legitimate diggers" I mean those whose living is made exclusively at digging. In addition to these there are about three or four thousand casual diggers—that is, settlers and their families who go out occasionally, and also the Maoris. A few men also go out to the fields from Auckland in the summer-time.

(2.) THE AVERAGE QUANTITY OF GUM OBTAINED AND PUT ON THE MARKET PER MONTH.

The last return—that for September of this year—shows that 555 tons was produced and marketed. This is the lowest return for ten years for a September month, except in 1901, when the quantity was as low as 498 tons.

The decrease is not confined to September. There is a general falling-off compared with last year of between 25 and 30 per cent.: compared with ten years ago the falling-off is about 40 per cent. For this year the average monthly production has been 495 tons.

(3.) PRICES PAID TO THE DIGGERS FOR THE DIFFERENT QUALITIES OF GUM.

According to a report supplied to me by Mr. Samuel Stafford, secretary of the Waipu Branch of the Auckland Gum-diggers' Industrial Union of Workers, the prices received by diggers for the different qualities of gum are as follows:—

At Waipu, Ruakaka, and Vicinity.

	Per Cwt.	
	s.	s.
Superior ordinary, termed three-quarters scraped	90	to 112
Fair ordinary	50	„ 60
Washed nuts	35	„ 40
Chips and dust	12	„ 14

NOTE.—Sometimes the diggers resrape and class the "superior ordinary" mentioned above, the new grade being valued from 120s. to 200s. per cwt. according to the degree of cleaning and quality. The paleness and clearness of the gum and the quantity in the sample fix its price.

						Per Cwt.	
						s.	s.
Three-quarters scraped, termed "steel"	...	...	...	...	...	70	to 85
Ordinary to fair, half-scraped	...	...	...	...	...	40	,, 50
Poor ordinary, rough sorts	...	...	...	...	...	25	,, 35
Sugary sorts	...	...	...	...	...	15	,, 20
Chips and dust	...	...	...	...	...	6	,, 12
Washed nuts, swampy white and black	...	...	...	...	...		10

Mr. R. Hebden, secretary of the Waihopo Branch of the same union, also supplied the following prices of gums dug in Waihopo, together with samples of the various gums referred to:—

						Per Cwt.	
						s.	s.
Best black gum	...	...	...	...	...	100	
Good black gum	...	...	...	...	...	86	
Ordinary black gum	...	...	...	...	...	36	
Nuts	...	...	...	...	...	16	
Mixed Chips	...	...	...	...	...	10	
Chalk gum	...	...	...	...	...	10	

(4.) THE NUMBER OF FIRMS IN AUCKLAND AND ELSEWHERE IN NEW ZEALAND HANDLING GUM.

The question as to the number of firms in the Dominion handling kauri-gum is somewhat difficult to answer. However, I think that, taking into account all the firms and businesses, I should put the number down at about fifty.

(5.) THE QUANTITIES OF KAURI-GUM SENT TO ENGLAND, UNITED STATES OF AMERICA, AND OTHER COUNTRIES, PER ANNUM.

It is somewhat difficult to obtain the correct return of the quantity of kauri-gum exported to England in particular, as the figures compiled and placed at my disposal by Mr. H. Edmonds, kauri-gum and general merchant, of Auckland, who supplied the statistics to the Commission of Inquiry into the Kauri-gum Industry, give information not of the quantity sent to the Home market, but of the quantity sent to Europe. However, these figures answer the question for all practical purposes, for the great bulk of the gum included in this return is not sent past the London market.

The largest export to Europe was in 1899, when the quantity totalled 5,347 tons. Last year it was only 2,925 tons. This year, so far, the exports have been less than last year, there being (up to and including September) a decrease of about 290 tons as compared with last year.

The following are the export figures for the last five years:—

						Tons.	
1903	...	...	...	...	...	4,118	
1904	...	...	...	...	...	3,542	
1905	...	...	...	...	...	4,377	
1906	...	...	...	...	...	3,988	
1907	...	...	...	...	...	2,925	

There is a possibility of the exports for the remaining months of the year exceeding those of the corresponding months of last year.

Last year 5,372 tons was exported to the United States of America, which quantity was a little above the average of the last five years, and more than 600 tons in excess of the exports for the year 1906. This year there is a remarkable falling-off in the exports to the States, the decrease so far being about 2,500 tons. This represents the enormous decrease of 50 per cent.

For the last five years the exports have been as follows:—

						Tons.	
1903	...	...	...	...	...	5,257	
1904	...	...	...	...	...	5,127	
1905	...	...	...	...	...	5,743	
1906	...	...	...	...	...	4,711	
1907	...	...	...	...	...	5,372	

A considerable quantity of gum is sent to Germany per annum; the other importers in their order of magnitude being Canada, France, Austria, and Holland. Small quantities are also exported to the Commonwealth and Fiji Islands.

(6.) THE TOTAL QUANTITY OF GUM EXPORTED PER ANNUM.

About 9,000 tons of kauri-gum is annually exported from New Zealand. To Europe and the United States of America over 8,250 tons is sent every year.

(7.) THE APPROXIMATE VALUE OF THE GUM EXPORTED FROM NEW ZEALAND PER ANNUM.

The approximate value of the gum exported per annum is also a difficult question to answer, owing to variations in the prices of this product. But, reckoning the value as being between £55 and £60 per ton, a fair estimate would, I should say, be about £475,000 per annum.

NOTE.—It may be noticed that the figures given above do not exactly coincide with the figures given in the statistics issued by the Registrar-General; but I have taken my particulars from

Mr. Edmonds's Statistical Chart, being the only figures I had available; and I understand these figures are regarded as authoritative by the wholesale merchants of Auckland.

(8.) WHO ARE THE IMMEDIATE BUYERS OF THE GUM FROM THE DIGGERS?

I find that the storekeeper in the immediate vicinity of the gumfields, or in the adjacent townships, is generally the buyer of the gum from the diggers. The latter say that they must sell to this market, and that they have often tried to sell in Auckland to merchants, but always got a lower price than if they had disposed of their gum to the buyer on the fields. This gives ground to the suggestion that there must be a ring, or an understanding between the merchants and the storekeepers to force the diggers to sell to the latter.

(9.) BY WHAT CHANNEL IS THE GUM EXPORTED?

The kauri-gum is usually exported by three or four Auckland firms to London direct, and from thence to New York, Germany, or Austria. Shipments are also occasionally made to the two latter countries *via* Sydney.

GRADING, AND APPOINTMENT OF GUM-GRADERS.

The most important point, to my mind, in connection with the kauri-gum industry is the lack of uniform grading. The want of such a system is responsible for the multiplicity and the fluctuation of prices, the dissatisfaction and uncertainty among the British and American buyers, and also for the weakening of the average price of samples of New Zealand gum.

I consider that the adoption of a system of compulsory grading of all gum before it leaves the Dominion is the chief remedy for most of the evils which attach to the industry at present.

There cannot be any valid reason against systematic grading, as grading is done at present by every exporting house in the trade. The trouble lies in the fact that each exporter grades to suit his own particular fancy, and establishes what he calls his brands, and on this basis attempts to do business, irrespective altogether of whether the arrangement may be suitable or advantageous to the consumer.

In support of the contention that there should be a system of uniform grading, it has been proved to me that, if one merchant adopts certain standards and another merchant adopts others, the gum which the one classes as No. 4 may be classed by the other as No. 8; consequently there would be two samples of gum from the same fields differently classified, though they were of exactly the same quality. The effect of such a state of things is that there are variations in prices which benefit neither the buyer nor the seller.

A proof of the above is the dissatisfaction which exists among British and American buyers. If buyers are forced to purchase one grade of gum under three or more distinct classifications, it is obvious that they must exercise much greater care in accepting parcels from this country than would be necessary under a uniform standard of classification. It is clear that Government grading—or, rather, grading carried on under a universal classification sanctioned and defined by the Government—must inevitably harden the average price of samples, for the buyer would know exactly what he was doing (as standard samples would be sent to all markets), and could therefore afford to reduce the margin which he must at present allow for wastage and for increased cost of sorting. Furthermore, such grading would improve the standard of the whole industry, and thus enable it better to meet the world's competition.

Every variety and quality of gum can be as easily graded to suit the proposed Government standard as they are now graded to suit the requirements of the Auckland merchants. There is a great tendency to disparage any attempt being made to grade the gum, and consequently a large quantity is shipped out of New Zealand ungraded. This must entail considerable loss to the producers, and the sorters in Auckland.

The Auckland merchants have a very strong objection to grading; but I am convinced that a standard system would benefit the Dominion as a whole, and would place the industry on a sound business footing, bringing it up to a level with other graded products such as flax, butter, &c. The gambling element now attached to the trade would also by this means be effectually eliminated.

I cannot too strongly emphasize the fact that it is not only desirable from every point of view, but *absolutely vital to the industry*, that the Government should step in and standardise the industry by standardising the gum.

The objection to Government grading comes not from the buyers or the diggers, but from the wholesale exporters and the brokers, who say that grading cannot be satisfactorily carried out. This contention is incorrect, and is prompted by the fact that, if the numerous elementary methods now in vogue were done away with, the profits which the brokers now make would go to those to whom they really belong—the diggers.

The storekeepers, diggers, and sorters are all in favour of the Government enacting a measure requiring the grading of kauri-gum under conditions similar to those under which butter is graded. They consider that all cases should be stamped with the name of the exporter, and that the grade should be branded on the outside of the package. A penalty should be inflicted on any one removing or attempting to remove the brand or the grade-mark from the package. There is a strong feeling amongst the storekeepers that the gum is tampered with, and other inferior gums added. Complaints have also been made by some varnish-manufacturers that kauri-gum bought in London contained other ingredients—*i.e.*, ingredients foreign to the nature of true kauri-gum. It has been reported to me that an inferior variety of gum is imported from Noumea, in New Caledonia, to Auckland, and is there mixed with the lower grades of kauri-gum for export.

I would recommend, therefore, that the Government should employ a grader in Auckland to inspect the gum before it is shipped to Great Britain, and that a grader be stationed in London. The latter grader would have to watch that nothing but pure kauri-gum was sold at the auctions as kauri-gum. There should be a grader in New York also.

A kauri-gum expert, Mr. B. E. Williams, of Aranga, has offered to demonstrate to any representative of the Government at any time the practical manner in which the gum can be graded, and any required system of grading conformed to. This gentleman has very kindly promised to forward me at an early date a range of samples as now handled, and is also willing to furnish samples which may be partially adopted to form the basis of standard grades.

I would also recommend the Government to arrange a conference in Auckland between the representatives of the exporters, the diggers, and the storekeepers. As the basis of representation, I would suggest that the Kauri-gum and Diggers' Union should nominate the representatives of the diggers; that the Government should nominate the representatives of the storekeepers and small buyers who are not controlled by the brokers and wholesale merchants. The exporters and the brokers should conjointly nominate their own representatives. The object of the conference would be to classify and arrange the various grades to the satisfaction of all concerned in the gum industry.

I was given to understand that the higher class of kauri-gum is becoming very scarce, the great bulk of the gum at present shipped being of medium grades. I found also that very low grades are being exported—grades which a few years ago were thrown away as worthless, as they were then considered to be of absolutely no marketable value. These low grades, I am informed, are extensively used in the manufacture of linoleums. It is reported that kauri-gum is being exported from Auckland unsorted in order that it may be graded at a lower rate in other countries where the labour costs less. The firms doing this do not require to employ labour in the Dominion, and as a necessary consequence many sorters in Auckland lack employment owing to this method of exporting unsorted gum.

GUM-BEARING SWAMP LANDS.

On my mission I made careful and extensive inquiries about the gum-bearing swamp lands belonging to the Government. I have seen the gum which has been taken from these swamps, and have no hesitation in recommending the Government to drain them. They would pay handsomely if this were done. Private holders of swamps containing gum have received as much as £40 an acre for the right to dig for gum, the diggers undertaking to thoroughly drain the swamps, and leave them in a condition suitable for cultivation; and even at this high rate of payment for the bare right of obtaining the gum, and notwithstanding the stringent conditions, I understand the diggers did exceedingly well out of the transaction.

I am of opinion that the Government should hold fast to the reserves and swamps for the British diggers: should a wave of depression sweep over the country they would prove a valuable source of employment for many of those out of work.

Certain suggestions have been made to me by the executive of the Auckland Gum-diggers' Union to the effect that in the event of the Government undertaking the draining of gum-swamps it should arrange to sell the digging-rights to the diggers in acre sections, or have them balloted for, when the swamps were drained.

After seeing the excellent work done by the Austrians in the Port Albert Reserves, I am afraid the suggestions of the executive are unworkable. To my mind it would be utterly impossible for one man to work an acre of swamp land in such a manner as to leave it in a satisfactory condition.

Indiscriminate digging seriously damages the surface and the land generally: it covers the land with dangerous holes from 1 ft. to 7 ft. in depth, and brings the clay substrata to the surface. These form great hills of useless clay. From £10 to £20 per acre would be the cost of replacing the normal surface of what is known as a dug-out field. A gumfield from which the gum has been extracted by systematic methods of digging and draining would leave the land of greatly increased value for agriculture or horticulture, as the case may be.

Many swamps would make a profit for the State from a land-value point of view if they were dug by first draining and afterwards by what is known as face digging—*i.e.*, removing to the surface all timber found within 3 ft. of it. Hundreds of thousands of acres in the gum-bearing country, now a useless barren waste, could be brought under cultivation and turned into comfortable homesteads by the careful handling of the gum lands. For the best results to be obtained, settlement must go hand in hand with digging. The letting of gum lands for the digging of gum only detracts from the value of the land and of the district.

Considering all the circumstances of the case, I think the Government should undertake the draining of the swamps, and when the swamps are drained they should be cut up into sections and balloted for by parties of legitimate diggers who would work amicably together. I may remark that the great success of the Austrians on the fields has been owing to their co-operative system of work, as against the Britishers' individualistic methods.

In the event of the Government draining the swamps and allowing the lands to go to the ballot, the diggers are quite prepared to pay a fair price for the right to work the sections, either in the form of an export tax, an increased license fee per annum, or a royalty on the gum procured from the land.

Should the Government approve my suggestion, I recommend that an experiment be made in draining a small swamp situate near Waipu. My reason for recommending this particular swamp is that it has a good fall towards a river, which would facilitate drainage operations, and, as I

understand it contains gum in large quantities, the cost of the experiment would not only be covered, but the whole transaction should pay handsomely.

SUGGESTED TAX ON AUSTRIAN DIGGERS.

It is freely stated that the Austrians only become naturalised in order that they may secure the five-shilling license and the right to work on Government reserves and swamps. There is a strong feeling that the Government should place a tax (through the banks) on all money sent by the Austrians out of New Zealand.

It has been suggested to me that, if the Government decides to appoint graders, and a representative to travel round in the interests of the industry, a license of at least £4 per annum should be charged to all Austrians, as the private landowner will reap the benefit of the work of the Government in establishing markets. It would, of course, be necessary that the Austrians should be advised of the change, so that when they enter into a contract they will be fully aware of their position. Judging by results, the Austrians could well afford to pay a license fee of £4 per annum, or an export duty of £1 per ton.

All Austrians should be debarred from working in Government swamps or reserves, as they can get full employment from private holders of gum lands or swamps. I understand that these private owners prefer the Austrians to the British diggers.

AUSTRIANS AS COLONISTS.

As to the Austrians themselves, there are some fine men physically among the younger section. These men should make fine colonists: they are strong, healthy, and intelligent; they are also good workers, and appear to be economical.

KAURI-GUM ACTS.

In my opinion the Kauri-gum Acts require amendment in the direction of administration. At present the local bodies do not get a fair-enough return for the labour involved under these Acts, as it does not pay the Ranger to hunt up men for license fees after the first few months of the year. The only effectual way of collecting the revenue seems to me to be through the Police Department. The local police officers in uniform are for many reasons very much respected by the Austrians, and every assistance is usually given them in looking up new arrivals on the fields. On the other hand, the Ranger, being an ordinary civilian, does not seem to carry the necessary amount of weight, and is easily bluffed.

SHARP PRACTICE IN THE MARKETING OF GUMS.

There must be some very crooked dealings in connection with the marketing of kauri-gum in London, when such firms as the New Zealand Loan and Mercantile Agency Company (Limited), Mitchelson and Co., and others firms can handle with profit wool and other produce, but their dealings in kauri-gum result in heavy losses. These firms always advise their clients to sell in Auckland, as they can get a better price there than if they ship to London and incur all the heavy expenses attached thereto. First-class firms of high standing act as brokers only.

I may mention that several of the storekeepers on the Wairoa River have tried the experiment time after time of despatching their gum direct to London, thinking that it would save brokers' charges; but the returns have always showed a heavy loss. I have no doubt that there exists in London a kauri-gum ring, and that this ring has been in existence for several years.

A merchant who has been for many years connected with this business made the following statement: "It is rather astounding that such a firm as Mitchelson and Co. could not place their gum and secure a satisfactory offer or a satisfactory price. They were beaten, and the gum was reshipped to Auckland and sold at a much higher price to the representatives of the London combine."

Although there are so many firms in Auckland who handle gum, there are only four who export direct to the London, American, and European markets. The impression among varnish-manufacturers in the various parts of the world is that it is impossible to buy kauri-gum in New Zealand, and that it can be obtained only through London or American firms. One of the largest buyers of gum in the Wairoa told me that a few months ago a gentleman called at his office and in a very roundabout and guarded way introduced the subject of the gum trade. After a time he stated that he was from Cleveland, America, and that, as his health had broken down, a doctor had ordered him a sea-voyage. The firm with which he was connected was one of the largest varnish-manufacturing firms in the city. Seeing that he was to take a sea-voyage, the firm decided that he might as well visit New Zealand, and try to make arrangements for the direct shipment of gum. *He was surprised to learn that he could buy gum direct.* He had thought that the gum had to be sold through one channel. The Wairoa merchant offered to sell to him direct. He bought 50 pounds' worth of gum to take back to America, that being all he could spare at the time out of his personal expenses. Fortunately he missed the steamer at Auckland. He then cabled to his firm in Cleveland, and they immediately cabled out £500. He returned to the fields and purchased the 500 pounds' worth of gum, which he shipped from Auckland *via* London to New York. The freight to New York was £4 10s. per ton, including all charges. He has now made arrangements to buy all his gum through this Wairoa firm. This is an example of how the ring endeavours to blind the merchants.

Here is an astounding illustration given me by another gentleman engaged in the industry. He says, "There is no ring in New Zealand, but there is a ring in London. This ring has been

in existence for years past, and has been the means of turning nearly all the shipments made by speculators into heavy losses. I have seen the catalogues sent by London merchants to their agents here after sales in London, and on the catalogues, opposite a sale of, say, 100 cases, would appear the remark made by this buyer, 'Thrown away to ———; we shared.' Again, 'Our value, 56s.; we bought by arrangement at 40s.: how long can this man last.' And there are many such remarks on the catalogues."

The report of the High Commissioner in London is looked upon as useless by the majority of the storekeepers and diggers, as they do not understand on what basis of quality the classification is arranged.

A leading gentleman in the trade, in the course of a conversation with me, made the following remark, which is very suggestive: "As to the High Commissioner's reports on the sales of kauri-gum, I consider they are quite unintelligible to any one but the particular shipper who knows *what grades were offered, and whose grades they were*; but to the average storekeeper they are of absolutely no use: whereas if a brand or grade of gum were shipped under a Government standard grade, every one, storekeeper and digger alike, would know what value his gum of a similar quality would be worth."

In the event of the Government not seeing its way to establish standard grades, and as there exists a strong feeling amongst exporters and sorters that all unsorted gum sent out of the country should pay an export duty, I would recommend that a duty of, say, up to £10 a ton on all unsorted gum over £40 per ton in value should be imposed. In this connection I may say that there is a great falling-off in employment for sorters in Auckland. The reason given for this is that the diggers and storekeepers are now scraping the gum on their own account, as they find that by so doing they can command a better price on the market.

THE DRAINING OF WAIPAPA KAURI SWAMP.

When I was in the Awanui district, Mr. Russell, chairman of the Lake Draining Company, which consists of some twenty-five diggers, interviewed me with reference to his company's right to work a lake. The facts of the case are as follows:—

This company drained the Waipapakauri Lake on their own account, without making any arrangement with the Government for the privilege of digging the gum after the lake was drained. Their position now is, that, after expending a considerable sum of money—they say, about £600—owing to their not having any legal rights to the land, any digger with a license can enter and dig for gum. The company fears that Austrians and Maoris will overrun their field, and the chairman considers that it is a great hardship, after all their expenditure, that any licensed digger can come along and enjoy the result of the company's labours. At the same time they would be only too glad to welcome any diggers, provided that such diggers paid an approximate sum based on the original expenditure incurred in draining the lake.

The lake extended over an area of some 90 acres, and before draining covered the soil to a depth of about 4 ft.

The following is a statement of the work done, which was handed to me by the chairman:—

Particulars of Tunnels and Ditch Work draining Lake.

Twenty-five men, 96 days, tunnel and two cuttings.

Ditch into swamp, 21 days.

Sawn timber, 2,500 ft. of heart of totara, for fluming through tunnel.

Split timber: Legs, 260—7 x 8; caps, 260—6 x 6; spreaders, 260—6 x 6; toms, 260—4 x 4; stays, 260—5 x 3; wedges, 5,000, more or less; slabs, 2,000—7 x 3; caps and braces for fluming, about 1,000 ft.

Wages, expert miner, £25.

Freight on sawn timber, £1 5s.

Sundries, tools, &c., £7.

Explosives, £11.

Carting, horse-feed, &c., £10.

Of course, before starting, the company should have made suitable arrangements with the Government; but, as they omitted to do this, they now say they are prepared to make a statutory declaration before a Magistrate that if allowed the exclusive right to dig for gum on this 90 acres they will undertake to leave the land thoroughly drained, and the drains all open, and the surface of the ground as consistently level as the nature of their employment will allow.

While I think that the company should be granted the exclusive right to this swamp on account of the large sum of money which they have expended on it, I still consider that they should be required to pay a royalty on the gum produced, as private owners charge heavy royalties for the right to dig on private swamps. I therefore recommend that such exclusive right be granted to the company, and that a suitable royalty be imposed.

COST OF NECESSARIES OF LIFE AT THE GUMFIELDS.

During my travels I looked into the question of the cost of groceries and other necessities of life on the fields, and found that as a general rule the ruling rates, considering cost of transit, &c., were very fair. In the Waihopo district, however, very strong objections were taken to the somewhat high prices which are charged by storekeepers, and the following statement of prices, with vouchers attached, was handed to me by the joint secretaries of the Auckland Gum-diggers' Union. The freight from Auckland to Waihopo and Waiharera is, I understand, from 10s. to £1 per ton.

Prices of Stores charged on Gumfields and at Auckland.

	Waihopo.	Waiharera.	Auckland.
Flour	8/6 (50 lb.)	8/6 (50 lb.)	6/0 (50 lb.)
Tea	2/0 per lb.	2/4 per lb.	1/3 per lb.
Sugar	0/3 " "	0/4 " "	0/2½ " tin.
Milk	0/9 " tin	0/10 " tin	0/6 " lb.
Candles	0/9 " lb.	0/10 " lb.	0/6 " lb.
Onions	0/3½ " "	0/3½ " "	0/1½ " "
Jam	0/6 " tin	0/6 " tin	0/5 " tin.
Potatoes	14/0 " cwt.	15/0 " cwt.	8/0 " cwt.
Bacon	0/11 " lb.	1/0 " lb.	0/9½ " lb.
Tinned beef	1/4 " tin	1/3 " tin	1/0 " tin.
Currants	0/10 " lb.	0/7 " lb.	0/5 " lb.
Hops	3/0 " "	2/0 " "	1/6 " "
Rice	0/4 " "	0/3½ " "	0/2½ " "
Cocoa	2/6 " ½ lb.	2/2 " ½ lb.	1/8 " ½ lb.
Sago	0/4 " lb.	0/3½ " lb.	0/2½ " lb.
Raisins	0/10 " "	0/8 " "	0/5 " "
Salt	0/2 " "	0/2 " "	1/0 " 20 lb.
Kerosene	5/6 " tin	5/6 " tin	4/8 " tin.
C. biscuits	0/6 " lb.	0/6 " lb.	0/3½ " lb.
Soap	1/0 " bar	1/0 " bar	0/6 " bar.
Baking-powder	2/6 " lb.	3/0 " lb.	1/9 " lb.
Sunlight soap	1/6 " box	1/4 " box	0/11 " box.

R. HEBDEN,

J. MCAULEY,

Secretaries, Auckland Gum-diggers' Union of Workers.

INFORMATION ASKED FOR BY STOREKEEPERS AND DIGGERS AS TO THE COMMERCIAL ASPECTS OF THE GUM INDUSTRY.

The following questions were submitted to me by the gum-buyers and representatives of the diggers:—

- (1.) Who are the actual consumers of kauri-gum in Great Britain, United States of America, and Canada?
- (2.) For what purposes do these consumers use kauri-gum?
- (3.) Could we obtain samples of the kauri-gum as these consumers buy it for their particular purposes?
- (4.) What prices are these consumers prepared to pay for the particular kind of kauri-gum they use?

I was not in a position to answer these questions, as, to enable one to do so, a representative would be required to travel through these countries to secure samples and gather the necessary information in a satisfactory manner on the spot.

I pointed out to the diggers that the matter of obtaining the information desired would involve a large outlay on the part of the Department in connection with the salary and travelling-expenses of such a representative. In reply the diggers stated that they were quite agreeable to pay an export duty of £1 per ton on all gums exported; and, as the yearly export exceeded some 8,000 tons, the revenue therefrom should not only provide for the expenses of such a representative, but should be more than ample to pay for a grading staff for this industry.

MR. ROSSE TREVOR'S PROCESS OF EXTRACTING VALUABLE PRODUCTS FROM KAURI-SWAMP PEAT.

While in Auckland Mr. Rosse Trevor, a chemist of that city, called on me with reference to his process for extracting valuable products from kauri-swamp peats. Mr. Trevor informed me that he had been experimenting at this process for some twelve years. He wished the Government to give him an opportunity of demonstrating the high commercial value of his invention.

I attach hereto Mr. Trevor's description of his process.

Auckland, 19th October, 1908.

Process for extracting Oils, Tar, and Gas from Kauri-swamp Peat.

The plant I have used is so constructed that it is continuous—that is to say, the peat put in from time to time, and the exhausted material drawn away. Also, as the peat sank down it came in contact with the greater heat, until the maximum heat was reached. When the peat was first placed in the extractor it was in a compact mass, and gradually as it approached the greater heats it separated, until at the last heat only a thin layer of peat was brought in contact with the heat. This is necessary because the whole of the component parts of the products must be brought off separately at their different temperatures—that is, at their respective boiling-points. All moisture (aqueous) must be driven off at or under 212° Fahr. Ordinary destructive distillation of kauri-peat will not give my products.

The chamber in which the soil is placed is connected with an expansion-chamber (which will keep warm during the process) by a suitable pipe (the tar separates out here), and from there to a second chamber which is used as a condenser, and which condenses most of the gas into oil. The uncondensed gas is then run through a condensing-worm, the oil drawn off, and the uncondensable gas collected if necessary. The gases coming over from the soil must be first introduced into an expansion-chamber as above, and not straight through a condensing-coil.

Temperatures—First, 200° to 212° Fahr.; second, 300° Fahr.; third, 400° to 410° Fahr.; fourth, 600° to 700° Fahr. These temperatures must be applied to the peat in turn. 700° Fahr. is generally sufficient to exhaust. The temperatures to be watched carefully are from 200° to 212° Fahr., and from 400° to 410° Fahr.

Treatment of Kauri-peat and Products.

By "kauri-peat" is meant swamp composed mainly of decayed and decaying kauri vegetable matter, leaves, bark, limbs, roots, &c., and decayed or sugary gum. There are thousands of acres of these swamps north of Auckland, and they are well known to contain large quantities of saleable kauri-gum and kauri timber lying buried. It is also a well-known fact to gum-diggers that the best of the kauri-gum lies beneath the kauri-trees buried in these swamps, and, as these swamps run from 4 ft. to 14 ft., more or less, in depth, it is impossible to get out either this valuable timber or the gum by the present system of digging.

In applying my process for treating this peat, and extracting certain valuable products, I would propose to take a swamp in a face, or run a wide drain through it, thereby draining the swamp if necessary, and uncovering the buried timber and gum.

The peat could be run up to the factory, and could be there treated, and returned to the swamp by tips, so as to leave a level surface. Diggers could be employed to load small trucks with the peat, and deliver it at the factory free of cost, and get out the timber for the gum which they would dig out. That is to say, it would pay diggers to deliver the peat to the factory and get out the timber for nothing; or, if labour was employed, the amount of gum and timber obtained would more than pay expenses of getting out and delivering at factory; or diggers would willingly pay extra royalty to dig on a drained swamp.

The products obtained from a kauri-swamp by my process would be kauri timber, kauri-gum, tar, oils, gas (illuminating or for power).

There is no machinery necessary in my process of extracting these products, tar, oils, and gas, unless it were thought advisable to use a gas-engine for power to haul logs or trucks from the swamp.

The gas made is a by-product, and would supply the necessary gas to the engine, or could be used underneath the furnace as auxiliary heating-power.

My plant consists of a cast-iron chamber, of suitable size, so constructed that it is continuous in working—that is to say, fresh soil is put in from time to time, and the exhausted soil is drawn out without interfering with the continuance of the process, and all particles of the soil are brought into contact with the right heat at the proper time. This cast-iron chamber is built into or sheathed round with bricks, and a small furnace added. It is connected by an iron pipe to a suitable expansion-chamber, where the gases which are driven off expand and separate from the tar: and from there to the second chamber, where most of the gases are condensed into oil, the remaining uncondensed gases going from there through a condensing-worm, and from thence into a small gasometer for supplying heat, power, or light.

Products.

Tar.—This is a splendid wood-preservative, and will prevent rusting or oxidization in iron or steel work. It dries well, and can be used in place of coal-tar.

Oils.—Some of these oils can be used with linseed-oil for painting purposes, especially for ships' hulls, piles, or wharf and bridge work. The main use I claim for the oils is for use on board men-of-war, torpedo-boats, or destroyers, as fuel. Such fuel is easily applied, can be used at a moment's notice either in the presence of coal fuel or alone. When used alone, no smoke or vapour of any kind is given off through the smokestack. If necessary, the whole of the fire-hole, fire-tubes, and spaces in the boilers can be filled with incandescent heat, and the whole of the oil can be gasified. The objection to oils already in use for this purpose is the thick black smoke which is given off, as by it a ship can be sighted at a long distance. This fuel oil could also be used on ordinary steamers or in stationary boilers. The oil is also suitable for linoleum-manufacture, japans, lacquers, &c.

The cost of producing this oil, tar, and gas by my continuous process would not exceed 2d. per gallon if 2 tons of raw material were treated in the twenty-four hours. The marketable kauri-gum and kauri timber which would be obtained is not, of course, considered in this cost of 2d. per gallon. Also, coal or fuel is allowed for at a cost of £1 7s. 6d. per ton. Fuel would not cost this, as the swamps are full of small timber which could be used. Also, the gas manufactured would be used as fuel. The necessary labour would consist of one man for, say, each eight-hour shift.

I may say in conclusion that these products are the results of experiments carried on by myself from time to time as conditions allowed, over a period of more than fourteen years; that I am a chemist, and have consulted some of the best known authorities in the world; also that it is absolutely necessary to use my process for the extraction, and my plant as here specified is the best kind to use.

My experiments have not been laboratory experiments, but practical ones, and I have treated several tons of peat from various swamps.

S. C. ROSSE TREVOR.
Auckland P.O.

GUMS COMPETING WITH THE TRUE KAURI.

I was surprised to find that many people, even on the gumfields, were not aware of the large number of gums which compete in the London and other markets with the true kauri product. The following is a rough list of the gums referred to:—

Animi,	Manila,	Argol,	Singapore,
Zanzibar,	Macassar,	Benguela (African),	Northcoet.
Copal,	Kovo,	Damar,	

The depression in the kauri-gum market may to a great extent be attributed to the large shipments of Manila gum which are going forward at the present moment.

THE IMPORTANCE OF KAURI-GUM IN THE MANUFACTURE OF VARNISHES, ETC.

To show the great value of kauri-gum in the manufacture of varnishes, &c., I append some extracts from an authoritative work entitled "A Few Notes on Varnishes and Fossil Resins," by R. Ingham Clark, F.L.S., F.R.G.S., &c., which speak for themselves.

J. GRAHAM GOW,

Trade Representative.

The Secretary, Department of Industries and Commerce, Wellington.

EXTRACTS FROM A BOOK ENTITLED "A FEW NOTES ON VARNISHES AND FOSSIL RESINS," BY R. INGHAM CLARK, F.L.S., F.R.G.S., ETC. PUBLISHED BY CHARLES LETTS AND CO., 3 ROYAL EXCHANGE, LONDON.

On the front page, "Compliments of Pratt and Lambert, Varnish-makers, New York and Chicago." On the last page, "Press of Robert L. Stillson, 514 Pearl Street, New York."

Pages 1 to 8 deal with the origin and antiquity of varnish. From the earliest times to the year 1884 the lacquer trade of Japan is dealt with. Lacquer is the crude sap of the *Rhus Vernicifera*, or lacquer-tree.

Pages 9 to 22 deal with the history of varnish-making in Europe, and comment on the varnish of the violin-makers of Italy, the secret of which was lost about 1760. Amber the supposed basis of this varnish. The uselessness of amber for varnish-making. Small and waste amber a drug on the market. A lot of 50 tons unsaleable at £20 per ton. Present consumption of gum for varnish-making, 3,000 tons per annum in England alone, by far the largest portion being kauri-gum. The various resins, kauri, animi, copal, &c., were commercially unknown in the seventeenth century, and many were unheard-of fifty years ago. Successful varnish-making a matter of personal experience with particular gums. The difference in production in 1832 and the present time, showing that to profitably manufacture in 1832 an output of 4,000 gallons per annum was necessary: at present an output of nearly that quantity per week is required. The fossil resins as a body are vulgarly designated copal, this being the general name in Mexico for all gums and resins. "Copal" of commerce supposed to have first been brought from Mexico.

Pages 24 to 26: Amber.—Amber is the resin of antediluvian coniferæ. Although met with in nearly all countries of the world, it is found in exceptionally large quantities in eastern Germany, on the shores of the Baltic and some Russian lakes. Mines of some importance are worked at Paventoung, in the valley of Hukung, Upper Burma. The miners use tools of a primitive character, such as wooden crowbars tipped with iron, and wooden shovels. This amber is found in a stratum of cretaceous blue clay, irregularly associated with lignite. Slav and Chinese merchants buy this amber at 1s. per pound for the rougher sorts, but fancy prices are paid for special pieces suitable for jewellery or cigar-tubes. In some places this resin occurs in the brown-coal layer of bituminous wood, with pieces still adhering to the lower parts of trunks of trees. The larger pieces have always a pyramidal form, which attests distillation from trees, and removes all doubt as to its vegetable origin. As all resins are liquid in their first stage, they naturally envelope insects, consequently we find them present in almost every variety, but particularly so in amber. Bernard de Jussieu has stated these insects do not belong to our continent or era, while Professor Zadbach, of Königsberg says that the trees yielding this resin (amber) must have grown upon the green sandbeds of the Cretaceous formation which then formed the shores of the estuaries where the lower division of the Tertiary accumulated.

NOTE.—The ambris or fossil kauri-gum must be much older than amber.—E.G.F.

Pages 27 to 29: The animis.—Of the animis, the most noted and valuable is that exported from Zanzibar. The tree yielding this resin is now proved to be the *Trachylobium Verrucosum*, which is closely allied to the genus *Hymenaea*. Burton, Kirk, and Stanley have written detailed descriptions of the finding of this gum. It was assumed that the ripe old kind called "sandarusi" by coast Natives was the product of extinct trees; but Sir John Kirk attributes it to the same species that yield the new resin "chakazi." The fields from which the older resin is collected lie some thirty miles from Kas Gomani in latitude 30° S., to Kas Delgado, in latitude 10° 41' S. The gum is always found overlaid with vestiges of decayed vegetation usually some 4 ft. deep, and associated with red sandy soil. The finest quality is dug by the Hawandi Tribe from the banks of a river of that name: its surface is strongly marked with indentations and elevations, giving rise to the trade term of "goose-skin." The whole trade seems to be in the hands of a few local houses. In the London market the price ranges from £200 to £350 per ton. Animi breaks with a dull even fracture, and has neither smell nor taste. The specific gravity is 1.08, and melting-point is 450° Fahr. Small and irregular supplies, known by the name of Madagascar animi, reach England from Mozambique: they closely resemble the Zanzibar kind in character, melting-point, and specific gravity, but, owing to mixed quality and rough cleaning, have a much lower value. Of late years considerable quantities of so-called animi have been received from Demerara. This fossil resin, the exudation of the locust-tree (*Hymenaea Courbaril*) of British Guiana, is evidently collected from the old roots and trunks of trees of a much earlier period. Some remarkably beautiful specimens, brilliantly clear, and ranging from 10 lb. to 60 lb. in weight, and containing many ants and other insects, are frequently met with. For some time the cleaned

higher grades were sold at from £200 to £240 per ton, but, owing to chemical defects when used for varnish-making, it now only sells for a little more than half these figures. This gum has a light specific gravity—viz., 1.030, and melting-point 450° Fahr. Although a weak gum, the writer thinks well of its practical utility, and regrets that larger and more regular supplies are not forthcoming.

Pages 30 to 37: The copals.—The term "copal" is the generic name given originally to any fossil resins; and consequently those kinds shipped from the west coast of Africa, south of Guinea, bear this name, although they are in character more closely related to the animis of the east coast. Benguela and Angola copals are the most valuable of the west coast varieties. Their botanical source is a matter of doubt. These resins are known to the Natives as "ocote cocoto" or "mucocoto," and are collected chiefly by the Bunda Natives. These gums are found in the first terraces of a range of mountains running parallel to the coast, and extending from the River Faire on the north to Cunene on the south; while, as to the width, it narrows to a few miles or broadens out to fifty or more according as the mountains recede or approach the coast-line. The whole region, except where traversed by rivers, is an arid desolate sandy waste. It is a matter of uncertainty whether the tree that produces this gum is still in existence or not. These gums are collected by Natives with crude tools, and disposed of to European traders. From this coast pieces larger than 1 lb. are seldom met with. The gum is generally covered with a thick white coating, and one particular description of Angola has a fiery red incrustation probably due to oxidation, and the character of the soil. All have pronounced facets resembling the "goose-skin" of the Zanzibar animi. We consider them excellent, and the nearest in value to the Zanzibar kind of all the fossil resins known. They have a high melting-point of from 425° to 475° Fahr., and a specific gravity of 1.068.

Pages 38 to 42: Sierra Leone copal.—Sierra Leone copal was known as far back as 1678, when Barbot found some fragments on the beach which he thought was ambergris. The principal producing district is a limited one, extending about two hundred miles north and west of Sierra Leone. Unlike the majority of the varnish gums, it is now regularly taken from the tree (*Copaifera Gaubourtiana*). This gum is called by the Natives "thobo," and is used by them as a remedy for sores and ulcerations, and also as a glazing for earthen pots, &c. The annual gathering of the gum-crop takes place about the end of March, the bark being cut and the gum collected. A strong coating is found on the old gum, which is extremely hard to move, although on the coast some rough attempt is made at cleaning by agitation in a lixivium prepared with the ashes of dry plantain and other stems. A special copal from Sierra Leone, known here as "pebble copal," is gathered from the beds of rivers, being washed from the mountain-slopes by the periodical rains. Sierra Leone copal is considered a valuable gum, and the imports amount to nearly 500 tons per annum. It is to be regretted that fields of earlier origin are not searched for, as with larger and more regular shipments the consumption would doubtless increase. The melting-point, about 360° Fahr., we do not consider a high one, and from its extremely pale colour and freedom from acid this resin is particularly adapted for some special descriptions of varnish. The specific gravity is about 1.068, and value from £60 to £120 per ton. Copals from Acera, Congo, Gaboon, and Loango occasionally reach England, but they are little known, and are received with such caution by manufacturers that a fair market is hardly open to them. That there are large districts in Africa containing untouched deposits of fossil resin is beyond doubt, for Sir Alfred Maloney, Governor of Lagos, has given particulars of a large district containing a fossil resin called by the natives "ogea," and Mr. James Heathcote, of Inhambane, East Africa (who was searching for the body of Captain Wybrant), discovered a tract of copal forest two hundred miles long, and collected six tons; but we never heard what became of it—it certainly never reached England as Inhambane copal. The Native names given to this copal are "stakate" and "staka," and the Zulu name "inthlaka." The field of supply is a hundred miles inland, and owing to difficulty of access it is unprofitable to open it up.

Page 43: South American copals.—In some parts of South America there are doubtless large undeveloped fields of fossil resins, as shipments arrive from time to time; but the supply is irregular, and varies in quality. It is said that there are trees still producing copals, which may account for the soft and mixed character of consignments. Were digging in old forestal ground resorted to, a much more valuable quality might be obtained. Several kinds of *Hymenaea* and *Icica* are reported to be the parent trees of these gums; but we think it is hardly to be doubted that they originate from the first-named genus, and principally *H. Courbaril*.

Pages 44 to 46: Manila copals.—The above includes all the Asiatic fossil resins at present known. Some of these are peculiar in themselves, resembling no other in appearance or character; others are so like New Zealand kauri that it is almost impossible at sight to distinguish them, the greatest adepts being able to do so by the sense of smell only. There are no fossil resins that require more care in buying and using. Some are so soft that they are little better than ordinary resin; others so hard that it is difficult to melt them; while they all have some tricky characteristic that causes trouble to manufacturers, even months after the varnishes are made. Although called Manila copals, from the fact of Manila being the port of shipment, there is actually no copal produced in the Philippines: the gums really come from other parts of the Malay Archipelago, the best from the Girantalo district of Borneo, and the worst from Ternate. These copals are mostly used in Germany. The largest sales are held in Amsterdam. The sorting and cleaning at port of shipment are all that can be desired, and they are well packed in cane mats or small cases of native make. It is hard to obtain any information concerning the producing districts or method of collecting, but, as gum-pits are spoken of, we may assume that the hard sorts are found some few feet below the surface, and under similar circumstances to the kauri of New Zealand. Many kinds have a tolerably high melting-point—viz., from 375° to 400° Fahr., with a specific gravity of about 1.70. These qualities are useful for certain grades of ordinary varnishes. Some of the

softer sorts shipped from Singapore are crop gums for which the trees are cut or tapped. In consequence of the melting-point being low, besides other and technical objections, these resins are unfit for use in making oil varnishes. The botanical source of the Manila copals is unknown, but we are inclined to think they are exudations of trees belonging to the natural order Dipterocarpeæ, and perhaps to some species of *Dammara* or closely allied coniferous plant. Commercially they do not hold the position in esteem or value of other fossilised resins.

Pages 46 to 53: Kauri.—Fifty years ago the kauri-gum of New Zealand was practically unknown; it therefore says much for the enterprise of the colonists that they have brought to such perfection in so short a time the collecting, cleaning, and sorting of this important product as to command a supremacy of the market. There is, however, we fear, a shadow to this pleasant picture, and, as it is as well sometimes to anticipate disaster, it behoves those interested to consider what the position will be when the kauri-fields begin to give out; for the excessive production stimulated by the ever-increasing demand is without doubt rapidly exhausting the known sources of supply. If it were not akin to heresy to make such a proposition, one would be inclined to suggest that the colonists should place an export tax on the gum. No other fossil resin could take its place, from a peculiarity it possesses (entirely its own) of assimilating with oils more readily and at an easier temperature than any other gum, not excepting those of a lower melting-point. The Manila copals enter largely into competition with kauri, but, as we have already stated, they are treacherous in use, and mostly contain strong acids and other objectionable substances, thereby upsetting all theory and practice, and resulting in injury to the manufactured article and regret to those who employ them. Kauri-gum is the product of the *Dammara australis*, and the quality is very diversified. The range of value in kauri is perhaps wider than in any other kind, so that consumers may choose qualities at prices from £20 to £300 per ton. There is a great variety of colour, from dark, almost black, to clear white, invaluable for certain kinds of varnish. Kauri is used by the leading makers of varnish in every country where made. This universal favour we by no means attribute to the superior results to be obtained by its use, but rather to the fact that it is easier to manipulate—that is, it unites with linseed-oil quicker and at a lower temperature than any other resin. It is probable that the essential oil it contains acts as a solvent; hence carbonisation is minimised, and a paler varnish is produced. The exports of this gum amount to 8,000 tons per annum, of which more than one-half is used in the United States of America. The specific gravity ranges from 1·070 to 1·080, and the loss by distillation in the process of manufacture from 15 to 25 per cent. The melting-point is fairly high, varying from 360° to 460° Fahr.

Pages 54 and 55: Gum damar.—The white damars of Batavia and Sumatra are employed only in the manufacture of colourless spirit or turpentine varnishes, and are commercially of three varieties—viz., the Batavian, from Java, and the Singapore and Padang, from Sumatra. The Batavian is the most valuable, on account of its perfect colour and freedom from yielding a milky solution when dissolved. They are the exudation from the *Dammara orientalis*, the trees being regularly cut for supplies. Their melting-point is about 260° Fahr., and specific gravity about 1·80. Several descriptions of dark and black damars are collected in India by making vertical incisions near the base, fire being set to the tree, and the resin allowed to melt and accumulate. These gums are obtained from the sal tree (*Shorea robusta*), the piney-varnish tree (*Vateria indica*), and probably other allied plants. The black or Kola damar is collected chiefly in the Tinnevely district, from the *Canarium strictum*. All are of a very low melting-point, freely soluble in turpentine, and consequently useless in the manufacture of oil varnish. Indeed, they are commercially unknown in Europe, where they would have the value of common resin. The Natives of India largely employ these damars in the manufacture of bottle-wax and low-grade turpentine varnishes.

Page 56: Mastics.—Strictly speaking, neither mastic nor the damars can be placed in the category of fossil or semi-fossil resins; but, as they are indispensable for certain special purposes, they are worthy of mention among the varnish-gums. Mastic, the exudation of the mastic or lentisk tree (*Pistachia lentiscus*, natural order *Perebinthaceæ*) is a recent or crop gum. The best and palest qualities come from the Island of Chios. Considerable quantities of the finest kinds are consumed in Turkey and the East for beautifying the teeth. Small parcels of inferior and yellowish quality reach this country from Morocco and other places in the Mediterranean. It is in limited demand in Europe for making a colourless varish used by artists to preserve oil paintings, &c.; and, as the resin is readily soluble in alcohol or turpentine, its varnish can with facility be removed when discoloured by age or dirt.

Pages 57 and 58: Conclusion.—Although small shipments of so-called bastard animis and copals arrive from districts new to the English markets, the foregoing constitute principally the list of resins used in making oil and turpentine varnishes. The mistake with first consignments of any new description is that the resin is collected from the trees themselves, or from the immediate surface, instead of some few feet below the surface. Consequently we receive new and soft gums, useless and valueless for varnish-making, instead of hard and fossilised kinds, for which there is always a demand. Generally we are inclined to think that the degrees of hardness should be the principal consideration in estimating the commercial value of all resins, and as a rule it might be taken that, the higher the melting-point, the older and more fossilised is the gum. We conclude with thanks to Mr. John R. Jackson, Curator of the Museums at the Royal Gardens, Kew, who has kindly furnished us with such information on the subjects as the gardens afford.

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1909.
NEW ZEALAND.

TE AKAU BLOCK
(RETURN RELATIVE TO APPLICATIONS FOR SECTIONS IN THE).

Return to an Order of the House of Representatives dated the 22nd October, 1909.

Ordered, "That there be laid before this House a return showing, with respect to the thirty sections in the Te Akau Block recently opened for selection, (1) the total number of applicants for all the sections; (2) the total number of applicants on the cash system; (3) the total number of applicants on the occupation-with-right-of-purchase system; (4) the total number of applicants on the renewable-lease system; and (5) the total number of successful applicants under each system.—(Mr. HERRIES.)"

RETURN showing the TOTAL NUMBER of APPLICANTS, the NUMBER of APPLICANTS under each TENURE, and the NUMBER of SUCCESSFUL APPLICANTS under each TENURE, for the Thirty Sections of Lands in TE AKAU BLOCK, offered for Selection under the Optional System on the 11th October, 1909.

Total Number of Applicants for all Sections.	Total Number of Applicants on Cash System.	Total Number of Applicants on Occupation-with-right-of-purchase System.	Total Number of Applicants on Renewable-lease System.	Total Number of Successful Applicants under each Tenure.		
				Cash.	Occupation with Right of Purchase.	Renewable Lease.
455	5	404	46	...	28	2

WM. C. KENSINGTON,
Under-Secretary.

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1909.
NEW ZEALAND.

CROWN LEASEHOLDS

(TRANSFERS OF), DURING LAST TWO YEARS.

Return to an Order of the House of Representatives dated the 11th November, 1909.

Ordered, "That there be laid before this House a return showing the number of transfers of Crown leaseholds allowed by the respective Land Boards of the Dominion during each year during the last two years, and the area of land thus transferred."—(Mr. Hogg.)

RETURN showing the NUMBER of TRANSFERS of CROWN LEASEHOLDS allowed by the respective Land Boards of the Dominion during each Year during the last Two Years, and the AREA of LAND thus TRANSFERRED.

Land District.	Year ended 11th November, 1908.			Year ended 11th November, 1909.			Total for Two Years.		
	Number of Transfers allowed.	Area of Land thus transferred.		Number of Transfers allowed.	Area of Land thus transferred.		Number of Transfers allowed.	Area of Land thus transferred.	
		A.	R. P.		A.	R. P.		A.	R. P.
Auckland ...	474	154,146	0 0	409	122,229	0 0	883	276,375	0 0
Hawke's Bay	139	77,268	0 0	100	52,746	0 0	239	130,014	0 0
Taranaki ...	235	80,950	2 25	166	49,531	2 3	401	130,482	0 28
Wellington ...	378	147,562	0 0	277	66,599	0 0	655	214,161	0 0
Nelson ...	35	10,149	2 29	41	33,194	1 23	76	43,344	0 12
Marlborough	59	204,821	1 16	47	67,034	3 12	106	271,856	0 28
Westland ...	72	7,206	2 5	87	45,081	1 37	159	52,288	0 2
Canterbury ...	213	302,844	0 22	122	71,831	1 21	335	374,675	2 3
Otago ...	187	233,618	0 0	118	193,679	0 0	305	427,297	0 0
Southland ...	147	213,013	0 37	125	47,510	2 15	272	260,523	3 12
Totals ...	1,939	1,431,579	2 14	1,492	749,437	0 31	3,431	2,181,016	3 5

WM. C. KENSINGTON,
Under-Secretary.

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1909.
NEW ZEALAND.

LEASE-IN-PERPETUITY SYSTEM

(RETURN RELATING TO TENANTS UNDER) WHO HAVE BEEN GRANTED THE RENEWABLE LEASE.

Return to an Order of the House of Representatives dated the 2nd December, 1909.

Ordered, "That there be laid before this House a return showing, up to 31st March, 1909, (1) the number of lease-in-perpetuity tenants who have applied for and been granted the renewable lease; and (2) the difference of the rent paid by such tenants in each respective case."—(Mr. RHODES.)

RETURN showing, up to 31st March, 1909, (1) the Number of Lease-in-perpetuity Tenants who have applied for and been granted the Renewable Lease; and (2) the Difference of the Rent paid by such Tenants in each respective Case.

Number of Tenants under Lease in Perpetuity who have applied for and been granted the Renewable Lease.		Difference in Rental.		
		Rental per Annum under Lease in Perpetuity.	Rental per Annum under Renewable Lease.	Difference.
6	...	£ s. d.	£ s. d.	£ s. d.
		10 0 0	9 12 10	0 7 2
		76 15 0	60 12 6	16 2 6
		68 14 0	56 15 11	11 18 1
		97 14 0	79 0 10	18 13 2
		312 5 0	207 8 4	104 16 8
		276 10 0	199 1 8	77 8 4
Totals ...	...	841 18 0	612 12 1	229 5 11

NOTE.—Five of these exchanges were leases under the Land for Settlements Act, the sixth being ordinary Crown land.

WM. C. KENSINGTON,
Under-Secretary.

Approximate cost of paper.—Preparation, not given; printing (1,400 copies), 18s. 6d.

NEW ZEALAND.

RAILWAYS STATEMENT.

BY

THE HON. J. A. MILLAR,

MINISTER OF RAILWAYS.

1909.

INCLUDING ANNUAL REPORT OF GENERAL MANAGER
OF RAILWAYS.



WELLINGTON.

BY AUTHORITY: JOHN MACKAY, GOVERNMENT PRINTER.

—
1909.

1909.
NEW ZEALAND.

RAILWAYS STATEMENT

(27th ~~1908~~th October, 1909).

BY THE MINISTER OF RAILWAYS, THE HON. J. A. MILLAR.

MR. SPEAKER,—

In presenting my first Railways Statement, that for the year ended 31st March, 1909, I have to announce that the results of the year's operations, when compared with those of the previous year, have on the whole been satisfactory, and may be summarised thus:—

	Year 1909.	Year 1908.
	£	£
Total earnings	2,929,526	2,761,938
Total expenditure	2,114,815	1,949,759
Net profit on working	<u>£814,711</u>	<u>£812,179</u>

GENERAL.

The mileage of line open for traffic on the 31st March, 1909, was 2,682 miles, against 2,471 miles for the previous year. The average miles operated during the year was 2,556.

The following extensions were opened during the year:—

	M.	ch.
Douglas-Huiroa	4	59
Mount Egmont Branch	6	2
Tauhoa-Wayby	3	50
Puha-Waikohu	3	25
Mataroa-Taumarunui	84	58
Reefton-Cronadun	5	31
Waikaka Branch	12	57
Tadmor-Kiwi	5	15
	<u>125</u>	<u>57</u>

In addition, the Government acquired the Wellington and Manawatu Company's line, between Wellington and Longburn, 83 miles 67 chains. The mileage of State-owned railways was thus increased during the year by 209 miles 44 chains.

The capital cost of lines open for traffic has increased from £24,365,647 last year to £27,762,592 for the year under review.

The net revenue, £814,711, is equal to a return of 3·13 per cent. on the capital invested in the open lines, and 2·80 per cent. on the total capital (£29,052,432) invested in open and unopened lines. The expense of working the Kawakawa and Kaihu Sections exceeded the gross revenue, the deficit being—Kawakawa £1,408, and Kaihu £310.

The total train-miles run during the year was 7,458,236, an increase of 406,962 miles over the preceding year. The increased train-mileage represents additional facilities mainly in the North Island main line and branches. It is

See Railway 1909-D-2.

largely due to the inauguration of the through Wellington–Auckland service *via* the Main Trunk line, the inclusion of the Wellington–Manawatu line in the Government railways system, and the revision of the time-tables generally, making it necessary to provide additional trains to meet the altered circumstances of the country.

In order to give the quickest connection possible between the various important towns of the North and South Islands, it was decided to accelerate the running of the first north and south bound express trains between Christchurch and Invercargill, and to reduce the number of stopping-places *en route*. One hour and thirty-five minutes were taken off the time, thus reducing the journey between Lyttelton and Invercargill to thirteen hours, and enabling the through journey by rail and steamer, Auckland to Invercargill, to be made in forty-eight hours including a stay of about three and a half hours in Wellington.

The following figures, which give the record of the late arrivals of the principal trains during the year, indicate that the train service has maintained punctuality :—

		AVERAGE LATE ARRIVAL.	
		Min.	Min.
For long-distance passenger-trains	...	1.29, against	1.43 last year.
For suburban trains	...	0.36, "	0.38 "
For long-distance mixed trains	...	1.88, "	1.75 "

The passenger traffic increased very materially during the year, and for the first time in the history of the railways of the Dominion ordinary passengers totalled over ten millions; the number actually carried being 10,457,144, an increase of 700,428 over the previous year. Season tickets numbered 192,547, an increase of 7,373. The number of workers' twelve-trip tickets was 45,227, and of workers' weekly tickets, available on suburban lines, 102,262. The steady increase in workers' tickets is a very gratifying evidence that the people for whose benefit they were established are realising the advantages derivable from living in the healthy suburban areas. I look forward, therefore, with confidence to a continued expansion of traffic from workers' tickets. Holiday excursion tickets issued numbered 790,179, an increase of 58,044 over the previous year. School, factory, and friendly societies' excursion tickets numbered 117,044, an increase of 3,964.

The coaching and goods traffic show increases under the various headings under which the traffic is grouped, carriages, pigs, firewood, timber, and merchandise excepted. In the coaching the increases have been—parcels, 23,728; horses, 701; dogs, 3,032: and in the live-stock and goods traffic—cattle and calves, 9,133; sheep, 618,389 head: chaff, lime, &c., 12,899 tons; wool, 17,323 tons; grain, 54,225; minerals, 22,136. The decrease in the number of pigs carried was 8,361 head; firewood, 7,534 tons; timber, 34,032 tons; merchandise, 27,676 tons.

The decrease in pig traffic resulted from low prices ruling this year, and in merchandise from a falling-off in the quantity of frozen meat railed in the South Island, and the fact that Home vessels now invariably proceed direct to Dunedin to discharge, thus diverting the bulk of the shipping traffic from the Port Chalmers line.

The decrease in timber resulted from the temporary closing-down of a number of mills owing to scarcity of orders, consequent on the dullness in the building trade.

The average number of men employed during the year was 12,505, against 12,338 for the previous year.

During the year 259 members of the permanent staff resigned, 64 retired on superannuation, 38 died, 132 were dismissed, 923 engaged, and 324 were taken over from the Wellington–Manawatu Railway Company.

Twenty appeals were heard during the year by the Railway Appeal Boards; of these, seven were upheld and thirteen dismissed.

Twenty members of the Second Division were promoted to the First Division during the year.

The sum of £7,512 has been paid as compensation during the year under the Workers' Compensation for Accidents Act.

New rolling-stock actually turned out of the Railway workshops completed during the year comprised two four-cylinder balanced compound Class X tender engines, weighing 94 tons each in working trim, and specially designed for use on the heavy grades on the Auckland Main Trunk line; eight heavy tank engines; four 50 ft. refreshment-cars; six 50 ft. sleeping-cars; twenty-four 50 ft. day cars; fourteen Class A cars; ten 50 ft. postal vans, ten bogie vans, 636 goods-wagons, and 750 new tarpaulins.

One thousand and nineteen modern steel axles were fitted to cars, vans, and wagons, in substitution for old iron axles. By this alteration the carrying-capacity of each wagon has been increased by 2 tons, and greater strength is insured.

All new car and wagon stock built in the workshops is equipped at the outset with steel axles, and this practice will be closely adhered to throughout.

All locomotives, carriages, and wagons built in the workshops for the North and South Island Main Trunk lines and branches are fully equipped with the Westinghouse brake.

Trials have been made of the use of incandescent mantles on lamps of carriages lighted by Pintsch's gas system. Beneficial results have been obtained, and all Pintsch gas-lamps are accordingly being fitted with mantles as rapidly as possible.

During the year 5,690,390 cubic feet of Pintsch's gas were manufactured at the five Railway gasworks installed in the North and South Island.

Machinery of improved type and greater capacity has been added to the workshop equipment during the year, at a cost of £10,956.

The whole of the rolling-stock, machinery and appliances, track, bridges, buildings, and other structures connected with the railway system throughout the Dominion have been maintained in a thoroughly efficient condition.

A total of 123 miles of line were relaid during the year—ninety-three miles of main line with 70 lb. steel rails, and thirty miles of branch line with 53 lb. steel rails that had been removed from the main line.

The number of new sleepers placed in the track was 292,549, and 335,891 cubic yards of ballast were used in track-maintenance.

A large number of improvements have been made at various stations throughout the Dominion: they comprise additions to station buildings, sidings, water-services; improved lighting at workshops, stations, and in yards; erection of houses for staff, signal appliances, goods-sheds, strengthening bridges, erecting stockyards, overbridges, and verandahs. New station buildings were provided at Fairlie, Mount Albert, and Glenavy, and new flag station between Takapau and Hatuma. A considerable number of other works, calculated to promote the public interests and the efficiency of the Railway service, were undertaken. Some were incomplete at the end of the year; they are, however, being pushed on as rapidly as circumstances will permit.

Traffic on the main line south of Dunedin was interrupted by floods in the Taieri River in July last. On the Otago Central line heavy falls of snow interfered materially with the train operations, and for thirteen days the running of trains on the portion of the line between Clyde and Ranfurly, a distance of fifty-eight miles, was impracticable.

In the North Island, traffic on the Foxton Branch was interrupted by floods for four days in August.

On 11th July two passengers were slightly injured in a derailment that occurred between Awatuna and Stafford on the Greymouth-Hokitika line, the result of cattle straying on the railway. On the 2nd February a slight collision occurred at Marton Junction, owing to the driver of a shunting-engine running out on to the main line after the down mail from New Plymouth had been given the right of road into the station. The damage to the line and rolling-stock was slight, and I am pleased to say that no one was seriously injured.

REVENUE.

The gross revenue for the year amounted to £2,929,526. It exceeded the estimate by £94,526, and the gross revenue for the previous year by £167,588. Passenger revenue shows an increase of £85,937; season tickets, £12,743; coaching, £10,165; goods and live-stock, £48,376; miscellaneous and rents, £10,367. The receipts per train-mile amounted to 94·00d., as against 93·75d. for the previous year. The earnings of the Lake Wakatipu steamers amounted to £6,438, as against £6,637 last year. The net earnings gave a return of 3·13 per cent. on the capital cost.

EXPENDITURE.

The expenditure for the year, including £5,058 incurred in connection with the Lake Wakatipu steamers, amounted to £2,114,815, an increase of £165,057 over the previous year, and absorbed 72·19 per cent. of the revenue, as against 70·59 per cent. for the previous year:—

				Expenditure.		Per Cent. of Revenue.	
				1908-9.	1907-8.	1908-9.	1907-8.
				£	£		
Traffic	...	...	...	605,940	534,634	20·73	19·40
Locomotive	...	...	...	794,260	733,403	27·17	26·62
Maintenance	...	...	...	656,154	638,560	22·45	23·18
Management	...	...	...	92,445	76,082	3·16	2·76
				<hr/>	<hr/>	<hr/>	<hr/>
				2,148,799	1,982,679	73·51	71·96
Less credit recoveries	...	...	...	39,042	38,297	1·33	1·39
				<hr/>	<hr/>	<hr/>	<hr/>
				2,109,757	1,944,382	72·18	70·57
Lake Wakatipu steamers	...	...	...	5,058	5,377	0·01	0·02
				<hr/>	<hr/>	<hr/>	<hr/>
				£2,114,815	£1,949,759	72·19	70·59
				<hr/>	<hr/>	<hr/>	<hr/>

The cost of maintenance of line, buildings, and structures has increased from £638,560 to £656,154, representing an average expenditure of £257·63 against £258·31 per mile of railway for the previous year. The increased expenditure has been incurred on the Kawakawa Section, £383; Whangarei, £73; Gisborne, £563; North Island main line and branches, £29,221; Picton, £3,247. The cost of maintenance has decreased on the Kaihu Section, £203; South Island main line and branches, £8,699; Westland, £477; Westport, £5,720; Nelson, £794.

The increased cost of maintenance is a natural corollary of the demand created by the expanding traffic for engines of greater power, cars and wagons of increased carrying-capacity, and faster train-services. The relaying of the main lines and branches with heavier rails, respacing of sleepers, strengthening of structures, and provision of many other works calculated to increase the efficiency of the lines and enable them to meet all the existing and prospective requirements for a considerable time to come had necessarily to be undertaken and, where possible, completed. During the ten years intervening between 1899 and 1909, a total of 929 miles of track has been relaid, 768 miles with new materials and 161 miles of branch line with rails taken out of main lines, and the expenditure on track-renewals, including relaying and new sleepers, amounted to £1,678,526. The enhanced price of materials, increased rates of wages, and expenditure incurred on the works enumerated has had a marked effect on the maintenance expenditure, which has steadily increased during the past ten years. Our railway-lines are, however, in a better condition than at any other period during their history. I confidently anticipate that as a result of the expenditure incurred in connection with betterments during the past few years a diminution of maintenance expenditure is now within measurable distance. I observe that the effect of high-priced material on the maintenance of railroads is not confined to the Dominion, but has been making itself felt in the United States and United Kingdom, where the cost of materials is assigned by some of the leading companies as the reason for the advance in their operating expenses.

Additions and improvements to lines and structures costing £13,308, which might fairly have been debited to capital, have been made during the year and charged to working-expenses.

The increased expenditure in the Traffic Branch is due to the additional train-mileage, higher rates of wages and salaries under the Classification Act, 1907, extra staff to operate the safety appliances, the installation and staffing of additional tablet stations, the provision of staff necessary to carry on the operations of the Department over a longer period of the day than heretofore, and provide for the requirement of the additional traffic. Incidentally it may be stated that a large number of the stations and tablet stations and signal-boxes are now open for practically the whole twenty-four hours, and have to be staffed accordingly.

In the Locomotive Branch the increase is due to extra train-mileage, heavy renewals and repairs, the increased cost of wages, fuel, and materials, and the additional staff to meet the requirements of the altered conditions since the opening of the Main Trunk line.

The increase in the cost of Head and Departmental Offices is incidental to the inclusion in the Head Office portion of the vote of items that have previously been charged under the sectional heading, and to the scale increase of salaries to the staff under the Classification Act.

The sum of £398,097 was expended under the head "Additions to open lines" and charged to Capital Account. Of this amount, £269,156 was expended on rolling-stock, tarpaulins, steam-cranes, Westinghouse brake, and machinery for workshops. The rolling-stock in respect to which the charges were made consists of 20 locomotives, 58 carriages, 7 brake-vans, 10 bogie and 570 four-wheeled wagons, 750 tarpaulins, and 2 cranes, completed on 31st March, 1909, and 15 locomotives, 44 carriages, 23 brake-vans, 65 bogie and 1,127 four-wheeled wagons, 325 tarpaulins incomplete but in hand on that date. £128,941 was spent in providing telegraph and telephone facilities, signals and interlocking, tablet and safety appliances, bridges, additions to station buildings, workshops, dwellings for staff, purchase of land, wharves, pile-driving and stone-crushing plant, sidings, loading-banks, stock-yards, crossings, additions to sheds, turntables, &c.

DUPLICATION OF LINES.

On duplication-work the following were charged to Capital Account under the provisions of the special Acts passed in 1903, 1904, and 1905 respectively, viz. :—

Wellington-Hutt duplication-works	...	...	...	£ 53,823
New Hutt Road, including land for same	...	...	...	12,428
				<hr/> £66,251 <hr/>
Auckland-Penrose duplication-works	...	...	...	£ 31,005
Addington-Rolleston duplication-works	...	...	...	37,510
Dunedin-Mosgiel duplication and deviation of line	...	...	...	73,019
				<hr/> 141,534 <hr/>
Less profit on sale of debentures, as per Treasury Accounts	...			15
				<hr/> £141,519 <hr/>

RESULTS OF WORKING.

The following is a summary of results of working, for year ending the 31st March, 1909, as compared with 1908:—

PARTICULARS.	Year ended 31st March.	
	1908.	1909.
Total miles open for traffic	2,471	2,682
Average miles open for year	2,469	2,556
Capital cost of opened and unopened lines	£26,735,140	£29,052,432
Capital cost of open lines	£24,365,647	£27,762,592
Capital cost per mile of open lines	£9,861	£10,351
Gross earnings	£2,761,938	£2,929,526
Working-expenses	£1,949,759	£2,114,815
NET PROFIT ON WORKING	£812,179	£814,711
PERCENTAGE OF PROFIT TO CAPITAL INVESTED	3·33	3·13
PERCENTAGE OF WORKING-EXPENSES TO EARNINGS	70·59	72·19
Earnings per average mile open	£1,114	£1,148
Working-expenses per average mile open	£786	£828
NET EARNINGS PER AVERAGE MILE OPEN...	£328	£320
Earnings per train mile	d. 93·75	d. 94·00
Working-expenses per train mile	66·18	67·89
NET EARNINGS PER TRAIN MILE	27·57	26·11
Passengers, ordinary	9,756,716	10,457,144
Season tickets	185,174	192,547
Goods tonnage	4,834,534	4,871,874
Live-stock tonnage	235,642	263,534
Train mileage	7,051,274	7,458,236
Locomotives	410	452
Passenger-cars	1,002	1,116
Wagons and brake-vans	15,475	16,476

CONCLUDING REMARKS AND FORECAST.

The work connected with the duplication of the railway-lines leading from the four main centres is progressing steadily. At Auckland the double line from Newmarket to Penrose Junction has been opened for traffic. One side of the two-track Parnell railway-bridge on the Auckland side of the tunnel has been completed, and is regularly used by trains. Work on the other side is progressing favourably.

The Wellington-Hutt duplication was opened as far as Ngahauranga on 27th September, and the two-track line between Lower Hutt and Ngahauranga is regularly in use. It is anticipated that a further section—Ngahauranga to Kaiwarra—will be ready for use shortly. The construction of the new main road is now in hand, and portions of it are being daily used for vehicle traffic.

Good progress has been made between Addington and Rolleston, and I anticipate that the double line between those stations will be ready for traffic very shortly.

Of the Dunedin-Mogiel line the portion between Dunedin and Caversham is nearly completed. The Anderson's Bay Road, King Edward Road, and other smaller steel bridges have been erected, the engine-depot has been completed to meet present requirements, and about 39 chains of the Caversham Tunnel have been driven.

The Culverden-Waiau motor service continues to give satisfaction, and it is anticipated that the bridges over the Hanmer, Percival, and Rogerson Streams will be completed in time to enable the motors to run through to Hanmer next tourist season. This will entirely obviate the necessity for the running of the coach between Waiau Ferry and Hanmer.

The rolling-stock under order and in course of construction in the Railway workshops at the close of the year comprised 6 Class X tender engines of the four-cylinder balanced compound type, weighing in working-trim 94 tons each, 2 heavy tank engines, 12 new boilers, 48 bogie cars, 22 bogie and 1 four-wheel brake-van, 65 bogie and 1,129 four-wheeled wagons.

Messrs. A. and G. Price, of Thames, have now delivered 12 of the Class A four-cylinder balanced compound locomotives, each weighing 72 tons in working-trim, they were building under contract for the Railways, leaving 8 to complete the contract. The engines turned out by this firm have been very satisfactory.

With a view to providing for the expansion of business that must occur in the near future as a result of the increased mileage of our lines and the opening-up and settlement of new districts, the following rolling-stock will be put in hand for the year 1909-10: 10 Class A, 10 Class B, and 20 Class W locomotives, 40 bogie cars, 12 bogie brake-vans, 16 bogie and 738 four-wheeled wagons.

I am of opinion that the time has arrived when it is desirable to develop settlement within a reasonable distance of the main centres of population by a further inauguration of motor services. Satisfactory results have been obtained from the running of motor-cars in connection with various railway systems in different parts of the world, and, in view of the advancement that has been made in connection with the means of propulsion and construction of such cars, I am at present obtaining data respecting the results of working the different types of railway-motors used abroad, so that the most efficient and economical type of vehicle suitable for the requirements of New Zealand may shortly be brought into use on our lines.

Signalling and interlocking equipment was installed and brought into operation at Lepperton Junction, Ngahauranga, Milton, Clinton, and Pukerua. Temporary systems were installed at Newmarket Junction, Penrose Junction, Addington Junction, and Hornby Junction; also, complete system for double-line working at Newmarket, Remuera, Green Lane, Racecourse Platform, Ellerslie, and Penrose. Forty-eight stations have been equipped with fixed semaphore signals, and the sidings known as Turner's, Gardner's, Booth's, and Palmer's have been interlocked with the tablet system, as has also a railway service siding at Burnside.

The equipping of Marton, Ngaio, Tawa Flat, Ngaurukehu, Sockburn, Templeton, Islington, and Parnell Tunnel is in hand, also the rearrangement of Addington, Hornby, and Rolleston to suit the double-line working.

One hundred and thirty Tyer's electric tablet instruments were installed and brought into use on the sections embracing the line between Marton and Frankton and between Wellington and Longburn. The extension of the system over the sections Woodville to Waipukurau, Pukeuri to Washdyke, and Ngahere to Blackball, is in hand.

The automatic tablet-exchanger was installed at 80 stations during the year. The main line, Wellington to Auckland, is fully equipped with this apparatus, which is being extended to other main lines as quickly as possible.

Since the practical work connected with the equipment of the lines with up-to-date safety appliances was begun in 1899, 650 electric tablet instruments have been brought into operation at 274 tablet signalling-stations, embracing 1,158 miles of line; staff-and-ticket working installed on 21 miles of track, electric lock-and-block working on 4 miles of double line; 969 signals and 1,993 levers installed in connection with the signalling and interlocking at 59 stations; 451 signals and levers installed at 186 stations not fitted with interlocking; 22 interlocked points fitted with Annett's or tablet locks; 125 automatic tablet exchangers, 125 electric bells, 130 signal-repeaters, 1,045 telephones, 212 Morse instruments, and sixteen electric lock-and-block instruments installed; and 4,754 miles of railway-wire provided on 1,652 miles of telegraph-poles.

Three events of unique and historical character occurred during the year—viz., the visit to Auckland of the American Fleet, the completion of the North Island Main Trunk line, and the acquisition by the State of the Wellington Manawatu Railway Company's line, eighty-four miles in length. The rail-heads of the North Island Main Trunk line were joined up on 3rd August, 1908. The first through passenger-train, conveying Ministers of the Crown and members of Parliament to take part in the welcome to the American Fleet, left Wellington for Auckland at 9.55 p.m. on 7th August. The train consisted of nine passenger-cars, one dining-car, and one bogie brake-van, weighed 212 tons, and was worked by the Manawatu Railway Company to Longburn, thence to Waiouru by the Working Railways, Waiouru to Taumarunui by Public Works Department, thence by the Working Railways Department to Auckland, where it arrived at 6.31 p.m. on 8th August. The return train left Auckland at 10.20 p.m. on 17th August, arriving Wellington at 6.10 p.m. on 18th August.

The official opening ceremony of the Main Trunk line took place at Manganui-o-te-ao on 6th November, the last spike being driven by the Prime Minister, the Right Hon. Sir J. G. Ward, K.C.M.G. Special excursion trains were run from Wellington and Auckland respectively, and were availed of by a large number of passengers.

Through goods and passenger traffic *via* the Main Trunk line were worked conjointly by the Working Railways and Public Works Departments from 9th November, 1908, until 15th February, 1909, when the last section was formally taken over by the Working Railways, and the Auckland-Wellington through express service commenced running daily.

The terms upon which the Wellington and Manawatu Railway Company's line could be acquired by the State having been mutually agreed upon, the company's line with 324 members of its staff and all appliances were taken over and incorporated as part of the State-owned railways on the 7th December, 1908. The rolling-stock acquired consisted of 20 locomotives, 56 bogie cars, 16 brake-vans, 343 wagons, 225 tarpaulins, and 2 ten-ton hand cranes. A considerable amount of expenditure has been incurred since the line was taken over in extending the station and siding accommodation, installing the electric tablet system, and making such other alterations as were found essential for efficiently working the increased traffic consequent on the diversion of business formerly sent from the Napier line to Wellington *via* the Wairarapa. This diversion of traffic has resulted in a material decrease in the business over the Rimutaka Incline, and a considerable saving in operating-expenses will ultimately result therefrom.

The advent of the American Fleet caused a large influx of passengers to Auckland, and made heavy demands on the railway during the week the fleet remained in port. I am gratified at having to state that the whole of the requirements were fully met in a highly satisfactory manner.

The inauguration of the through train service between Wellington and Auckland has already had a very marked effect on the passenger-traffic between stations in the Auckland, Wellington, Taranaki, and Hawke's Bay Provinces. Practically the whole of the passenger-traffic which formerly went by the sea routes *via* New Plymouth and Napier to and from Auckland now comes overland *via* the Main Trunk line. The steamer service between New Plymouth and Onehunga now consists of a bi-weekly service run by the Northern Company, the Union Company's passenger-boats having been withdrawn from the trade. The diversion of business has, however, considerably affected the receipts of the Wellington-New Plymouth mail trains, the traffic by which is practically reduced to the local business for stations up to New Plymouth.

The concessions made in rates and fares comprised reductions in suburban tickets and in ordinary tickets between stations between which a suburban area intervenes; extension of distance over which workers' twelve-trip tickets are issuable; extension of fifty-trip family and single commutation tickets to twenty-five miles, and reduction of rates therefor; mileage rates on a graduated scale for annual season tickets; reduction in rates for timber for long distances, for road-metal for local bodies, for native coal for long distances, and for ships' goods conveyed on port lines.

The amount of increased pay accruing to the Railway staff as a result of the operation of the Classification Act of 1907 was £147,000, and the additional amount involved in paying the marriage allowance under the regulation was £12,000 per annum.

With a view to removing some of the disabilities of passengers who travel by the ferry boats between stations in the South Island and North Island, arrangements have been made whereby the Union Steamship Company can issue to passengers making rail and steamer journey a rail ticket from Wellington and Lyttelton respectively to the more important centres in the respective Islands. The system will be extended from time to time as found necessary. Arrangements are also in progress for the checking of passengers' luggage for the through journey by rail and steamer from and to stations in either Island. This will include cartage between railway-station and steamer at Wellington, the owner of luggage being required to pay the cost of the cartage, the right for which will be let by tender. The luggage will under this system be checked at the starting station, if the owner so desires, to the final destination in the respective Islands. To avoid any inconvenience, passengers are recommended to take articles required for use *en route* in a separate package, which may be checked to the port station or otherwise at their option, as luggage checked through will not be delivered short of the final destination.

With a view to facilitating the movements of passengers who desire to make tours combining rail, coach, and steamer trips, arrangements have been made under which the New Zealand Government Tourist Branch will issue tickets for the rail journey at the same time that the ticket for the steamer or coach trip is purchased.

The number of persons receiving the benefits of the Government Railways Superannuation Fund at the end of the year was 796, making an annual charge on the fund of £37,602 2s. 4d. The beneficiaries comprised 405 late members of the service who had voluntarily retired, 88 who had been retired medically unfit, 118 widows, and 185 children. In accordance with the provisions of section 55 of "The Public Service Classification and Superannuation Amendment Act, 1908," the Railway Servants' Society paid into the Government Railways Superannuation Fund the sum of £1,500 to purchase the broken time of the men who took part in the maritime strike in 1890.

The Wellington-Manawatu Railway Company, in terms of section 96 of "The Government Railways Act, 1908," paid into the fund the sum of £5,000 to place its employees on the same footing as Government railway men in respect to

counting service with the company; and the company's employees, in accordance with the provisions of the same section, have paid into the fund £5,478 5s. 7d. as the contribution towards purchasing back time for superannuation.

A number of contributors who had broken time in the service of the State Railways have taken advantage of the provision in section 56 of "The Public Service Classification and Superannuation Amendment Act, 1908," and paid the amount required to enable their broken service to count for superannuation.

The accumulated fund now amounts to £157,151 14s. 9d. A feeling appears to exist among a section of the contributors to the fund that widows of railway-men who have retired on superannuation should, at the death of their husbands, receive the same allowance as widows whose husbands die before reaching the retiring-age. It has been pointed out on several occasions that the contributions at present made to the fund are the minimum, while the benefits are the maximum. It is obvious, therefore, that no additional charges can be put on the fund without a corresponding increase being made in the rate of contribution.

The financial stability of the fund is of paramount importance to every contributor, and each such person should carefully consider the effect the adoption of the suggestion would have on the fund before seriously putting it forward. It should be definitely understood that no charge can be placed on the fund without a corresponding increase in the payments of each contributor thereto.

The following statement shows a brief comparison of the traffic and the rolling-stock for dealing therewith when the Government resumed control of the railways in 1895 with that at 31st March of the present year:—

	31st March, 1895.	31st March, 1909.	Increase.	Per Cent of Increase.
Passengers (number) ...	3,905,578	10,457,144	6,551,566	168
Season tickets " ...	28,623	192,457	163,924	573
Parcels " ...	444,981	961,293	516,312	116
Horses " ...	11,185	19,124	7,939	71
Carriages " ...	750	2,550	1,800	240
Dogs " ...	23,517	50,798	27,281	116
Drays " ...	705	2,427	1,722	244
Cattle " ...	40,890	159,884	118,994	291
Sheep " ...	1,519,921	5,211,489	3,691,568	243
Pigs " ...	43,292	117,626	74,334	172
Chaff, lime (tons) ...	36,972	182,666	145,694	394
Wool " ...	103,328	137,916	34,588	33
Firewood " ...	85,102	102,620	17,518	21
Timber " ...	198,578	582,860	384,282	194
Grain " ...	388,556	793,793	405,237	104
Merchandise " ...	377,938	729,971	352,033	93
Minerals " ...	857,917	2,342,048	1,484,131	173
Total tonnage ...	2,048,391	4,871,874	2,823,483	138
Total revenue ..	£1,150,851	£2,929,526	£1,778,675	155
Locomotives (number) ...	269	452	183	68
" tractive power (lb.)	1,756,178	5,162,237	3,406,059	194
Passenger-cars (number) ...	498	1,116	618	124
Passenger-cars, seating accommodation ...	17,455	46,722	29,267	168
Brake-vans (number) ...	204	356	152	75
Sheep-wagons " ...	390	1,066	676	173
Total wagons, all classes (number) ...	8,264	16,120	7,856	95
Wagon carrying-capacity (tons)	50,861	128,031	77,170	152
Train-mileage run...	3,221,620	7,458,236	4,236,616	132

Although favourable circumstances of a non-recurring character existed during the last financial year, and there has been a slight depression during the first portion of the year just entered upon, I feel confident from present indications that a return to prosperity is assured, and am of opinion that the railways will again show satisfactory results. I therefore estimate the revenue for the year ending 31st March, 1910, at £3,050,000, and the expenditure at £2,143,500.

ANNUAL REPORT OF THE GENERAL MANAGER OF NEW
ZEALAND GOVERNMENT RAILWAYS.

THE PROCEEDINGS OF
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ANNUAL REPORT OF THE GENERAL MANAGER OF NEW ZEALAND GOVERNMENT RAILWAYS.

New Zealand Government Railways, Head Office,
Wellington, 3rd July, 1909.

SIR,—

I have the honour to report upon the working of the open railways for the financial year ended the 31st March, 1909.

The capital cost has increased from £24,365,647 to £27,762,592. The revenue was £2,929,526 against £2,761,938, an increase of £167,588. The net revenue has been £814,711, as against £812,179 last year. The expenditure for the year under review has been £2,114,815 against £1,949,759, an increase of £165,056. The rate of interest on capital was £3 2s. 7d., as compared with £3 6s. 8d. last year. The revenue per train-mile was 7s. 10d. and the expenditure 5s. 8d., as compared with 7s. 9½d. and 5s. 6¼d. respectively last year.

The following extensions have been opened during the year :—

	M.	ch.
Douglas-Huiroa	4	59
Mount Egmont Branch	6	2
Tauhoa-Wayby	3	50
Puha-Waikohu	3	25
Mataroa-Taumarunui	84	58
Reefton-Cronadun	5	31
Waikaka Branch	12	57
Tadmor-Kiwi	5	15
	125	57

This added to the Wellington and Manawatu Railway Company's line, 83 miles 67 chains, makes the total addition to the system during the year under review 209 miles 44 chains, bringing the total mileage open for traffic on the 31st March, 1909, up to 2,682 miles, as against 2,471 miles at the close of the previous year.

During the year 10,457,144 ordinary passengers were carried, yielding a revenue of £921,411, and 192,547 season tickets were issued, the revenue derived therefrom being £90,248. There was thus an increase of 700,428 ordinary passengers and £85,937 revenue, and of 7,373 season tickets and £12,743 revenue, over the traffic carried under these heads during the previous year. 64,465 children and teachers and 52,579 adults travelled by school and factory excursions during the year, the revenue derived therefrom being £7,641. 790,179 passengers travelled at holiday-excursion fares, yielding a revenue of £166,471, an increase of 58,044 excursionists and £24,951 revenue as compared with the previous year. The coaching and goods traffic has been well maintained during the year and shows increases under most headings.

Increases.

Coaching.—Parcels, 23,728 ; horses, 701 ; dogs, 3,032. Revenue, £10,165.

Goods.—Cattle and calves, 9,133 head ; sheep, 618,389 head ; chaff, lime, &c., 12,899 tons ; wool, 17,323 tons ; grain, 54,225 tons ; minerals, 22,136 tons. Revenue, £48,376. Total increase in goods and live-stock tonnage, 65,232 tons.

Decreases.

Coaching.—Carriages, 279.

Goods.—Pigs, 8,361 head ; firewood, 7,534 tons ; timber, 34,032 tons ; merchandise, 27,676 tons.

Large additions were made to the train-services during the year. The most important of these consisted of the inauguration of the through fast services to connect Auckland and Invercargill after the completion of the North Island Main Trunk line. It was anticipated that the opening of this line would have a material effect on the trend of the traffic between the two Islands. A great deal of thought was therefore given to the time-table, and an effort made to establish at the outset a service that would reasonably meet requirements. The expresses from Lyttelton to Invercargill and Invercargill to Lyttelton were accelerated, the journey-time being reduced by one hour and thirty-five minutes, suitable connection being made by the Union Steamship Company's steamer to permit of inter-Island passengers catching expresses at Wellington and Lyttelton respectively. Adjustment of train-services on other portions of the railway system were made to provide for the local requirements as far as possible. During the time the through trains have been running they have maintained punctuality. The Wellington-Auckland journey occupying a night, the train-equipment consists of sleeping, refreshment, and ordinary day-cars, each 50 ft. long, and heated by steam and specially built for the line.

The alterations and additions made to the services involved a considerable increase in the train-mileage, which was 406,962 miles greater than that of the year 1908.

Three important events occurred during the year—viz., the visit of the American Fleet to Auckland, the opening of the North Island Main Trunk Railway, and the incorporation of the Wellington and Manawatu Railway Company's line with the Government railways. Very heavy traffic resulted from the visit of the fleet, but all the requirements were satisfactorily met.

I regret to report that on the 11th July two passengers were slightly injured in a derailment that occurred between Awatuna and Stafford, on the Greymouth-Hokitika line, caused through cattle straying on the line. A collision also occurred at Marton Junction on the 2nd February through a shunting-engine running out on to the main line after the signals had been lowered for the incoming south-bound mail-train from New Plymouth. No one was seriously hurt, and very little damage was done to the rolling-stock.

The installation of electric tablet, telephones and telegraphs, and interlocking has made satisfactory progress during the year. Essential safety appliances have been installed at stations between Wellington and Longburn since the Manawatu line was taken over. Considerable improvements have also been made in the accommodation provided at stations on that line to meet the requirements of the traffic, a very large proportion of which now comes *via* Longburn instead of *via* the Rimutaka Incline as heretofore.

LOCOMOTIVE.

Mr. A. L. Beattie, Chief Mechanical Engineer, reports as follows :—
The engines, rolling-stock, plant, machinery, and appliances have been maintained in thoroughly efficient working-order, the details of work being as follows :—
Locomotives.—The number of engines in service on 1st April, 1908, was 410, and the number on 31st March, 1909, was 452. Twenty new engines were added to stock: of these, ten were built in the Government Railway Workshops, and comprised two Class X, 94-ton tender engines, four-cylinder “*balanced-compound*” type, specially designed and built for the heavy grades on North Island Main Trunk Line, and eight heavy tank engines; ten Class A, 72-ton tender engines, four-cylinder “*balanced-compound*” type, were completed under Messrs. A. and G. Price’s contract. Two tank engines were taken over from Public Works Department after the completion of North Island Main Trunk Line, and twenty engines were taken over in connection with the acquisition of the Wellington and Manawatu Railway Company.
In the Government Railway Workshops to date 73 engines have been built, and 24 locomotives rebuilt to more modern types.
Five hundred and fifty-eight locomotives passed through the workshops during the year, details as under :—

Particulars.	Number and Type.							Total.
	Four-cylinder “ <i>Balanced-compound</i> ” Tender Engines.	Tender Engines.	“ <i>Articu- lated-com- pound</i> ” Tank Engines.	Tank Engines.	Fell Engines.	Fairlies.		
						Single.	Double.	
Number passed through shops	27	215	3	286	7	14	6	558
Built new	2	...	...	8	...	...	...	10
Re-erected	2	...	...	8	...	...	...	10
Thoroughly overhauled ... ..	...	33	...	33	...	3	1	70
Heavy repairs	6	78	2	112	6	9	2	215
Light repairs	17	104	1	125	1	2	3	253
Painted and varnished	2	27	...	39	...	6	...	74
Touched up	14	70	...	43	...	1	...	128

Included in above return are ten engines for Public Works Department.
In the Railway Workshops at close of year there were under construction six large 94-ton tender engines, four-cylinder “*balanced-compound*” type, specially designed for North Island Main Line, and two heavy tank engines.
Under the contract with Messrs. A. and G. Price, Thames, eight engines were still to deliver, so that altogether there were in hand at close of year sixteen locomotive engines.
Boilers.—Boiler renewals and repairs have been kept well up to date. Nineteen new locomotive boilers and two vertical boilers were completed. The following are details of boiler-work :—

Description.	Number passed through Shops.	Built new.	Heavy Repairs.	Light Repairs.	New Tubes (Sets).	Tubes pieced (Sets).	New Smoke-box Tube-plates.	New Fire-box Tube-plates.	Boilers patched.	New Firebox.
Boilers	320	19	91	210	73	17	4	5	84	3

Twelve new boilers are under construction, comprising four Class F, two Class J, one Class S, and five Class X.
Carriages.—The car stock on 1st April, 1908, consisted of 1,002 cars, and on 31st March, 1909, was 1,116 cars. Fifty-eight new cars were built in Railway Workshops, being four 50 ft. refreshment-cars, six 50 ft. sleeping-cars, and twenty-four 50 ft. day cars for North Island Main Trunk Line; fourteen Class A cars, and ten 50 ft. postal cars. One worn-out four-wheel car was written off, and replaced with a new standard 50 ft. car. Fifty-six bogie cars were taken over with the Wellington and Manawatu Railway. The car seating accommodation has been increased 9 per cent. by the additional cars. Equipping cars with lavatory accommodation, cushioned seats in second-class compartments, and platform gates and gangways has been carried out as required.

The following table gives details of repairs, &c., to cars for the year :—

Particulars.	Number and Type of Cars.			Total.
	Bogie.	Six-wheel.	Four-wheel.	
Number passed through shops	1,612	78	18	1,708
Built new	59	...	...	59
Thoroughly overhauled	8	...	...	8
Heavy repairs	531	11	1	543
Light repairs	1,014	67	17	1,098
Painted and varnished... ..	436	18	3	457
Touched up and revarnished	557	10	1	568

Forty-eight new bogie cars are under construction in Railway Workshops.

Brake-vans.—The number of brake-vans on 1st April, 1908, was 333, and the number on 31st March, 1909, was 356. Ten new bogie vans were built : seven of these were additional stock, and three replaced three worn-out vans. Sixteen brake-vans were taken over with the Wellington and Manawatu Railway.

The repairs to brake-vans were as follows :—

Description.	Number passed through Shops.	Built new.	Thoroughly overhauled.	Heavy Repairs.	Light Repairs.	Painted.	Touched up.
Brake-vans	516	10	5	148	353	121	165

Twenty-three new brake-vans are under construction in Railway Workshops, being twenty-two bogie vans and one four-wheeler.

Wagons.—The wagon stock on 1st April, 1908, comprised 15,142 vehicles, and on 31st March, 1909, the number was 16,120. Two four-wheel horse-boxes destroyed by fire at Waverley were replaced with one bogie horse-box. Two coal hopper-wagons were written off : one was worn out, and the other was destroyed through an accident ; both were replaced. Six hundred and thirty-six new wagons were built for ordinary traffic, and three hundred and forty-three wagons were taken over with Wellington and Manawatu Railway.

The carrying-capacity of wagon stock was increased by 10,776 tons, equal to 9 per cent., or an equivalent of 1,796 ordinary wagons.

The following table gives particulars of repairs, &c., to wagon stock for the year :—

Description.	Number passed through Shops.	Built new.	Re-erected.	Rebuilt.	Heavy Repairs.	Light Repairs.	Painted.	Touched up.
Wagons	14,914	639	16	43	3,398	10,818	2,695	5,175

In addition to the above, twenty stone-wagons were built for Maintenance Branch.

One thousand one hundred and ninety-four wagons are under construction, comprising 65 bogie and 1,129 four-wheelers.

Tarpaulins.—The stock on 1st April, 1908, was 11,422 tarpaulins, and on 31st March, 1909, the stock was 12,397 tarpaulins. Seven hundred and fifty new tarpaulins were made and added to stock ; 1,627 worn-out tarpaulins were written off, and replaced with a similar number of new tarpaulins made in the Railway Workshops. Two hundred and twenty-five tarpaulins were taken over with Wellington and Manawatu Railway.

The following table shows the work on tarpaulins for the year :—

Description.	Number passed through Shops.	Manufactured new.	Condemned, and replaced with New Tarpaulins.	Repaired.
Tarpaulins	16,129	750	1,627	13,752

There were 325 new tarpaulins in hand at close of year.

Stationary Engines and Cranes.—The repairs and renewals to stationary engines and cranes were as follows :—

Description.	Number passed through Shops.	Built new.	Erected new.	Re-erected.	Heavy Repairs.	Light Repairs.	Painted.	Touched up.	Boiler-repairs.					
									Heavy Repairs.	Light Repairs.	New Boilers.	New Tubes (Sets).	Pieced Tubes (Sets).	Boiler patched.
Hand-cranes	22	...	...	...	6	16	3	5	...	...	...	...	...	...
Steam-cranes	49	2	1	2	10	34	5	12	...	9	...	...	...	2
Hydraulic cranes...	1	...	...	...	...	1	...	...	...	...	...	...	...	...
Stationary engines ...	16	...	...	...	1	3	...	...	4	12	...	3	1	5
Pile-drivers and hoisting-engines	5	...	...	...	1	4	...	1	...	...	2	...	...	...

Two 10-ton hand-cranes were taken over with Wellington and Manawatu Railway.
Axles.—During the year 1,019 car, van, and wagon axles were replaced with modern steel axles : this number does not include new stock built. The replacement of old iron axles with modern steel axles is being pushed on as expeditiously as possible. The steel axles increase the carrying-capacity of wagons by 2 tons.

Westinghouse Brake.—All new engines and rolling-stock built for North Island Main Line and Branches, also for South Island Main Line and Branches, are equipped with the quick-acting Westinghouse brake before being placed in traffic. Efficient arrangements are in force for the upkeep and examination of the Westinghouse brake.

Car-lighting.—The oil-gas manufactured at the five separate Pintsch Gasworks amounted to 5,690,390 cub. ft., costing 2s. 2·44d. per 100 cub. ft. Carriages lighted with Pintsch gas are being equipped with incandescent inverted mantles as quickly as possible. These mantles have effected a marked improvement in car-lighting, besides being more economical.

Workshops.—Various additions to workshop plant and appliances have been effected. The sum of £10,956 was expended on new machinery during the year.

Motor-cars.—Cars in service have been kept in good and efficient working-order.

Steamers.—The Railway Department's steamers on Lake Wakatipu have been maintained in good order and condition.

Retaring Wagons.—When wagons are in workshops for repairs the tare weight is checked ; also, at intervals not exceeding twelve months the tare of all goods-wagons in service is checked and adjusted.

Renewals and Replacements.—During the year under review one old worn-out four-wheel car, three old four-wheel brake-vans, two coal hopper-wagons, and 1,627 tarpaulins were condemned and written off ; also, two four-wheel horse-boxes were destroyed by fire. These were respectively replaced with one standard 50 ft. car, three standard bogie brake-vans, two standard coal hopper-wagons, 1,627 new tarpaulins, and one new bogie horse-box. In accordance with the practice of the Department, rolling-stock sold, worn out, or broken up is written off, and replaced with standard vehicles, and the cost debited to working-expenses.

Train Running and Mileage.—There has again been a very marked increase in train-mileage. Compared with 1907-8 the increase for 1908-9 is 406,962 train-miles, or equal to 5·77 per cent., and 788,773 engine-miles, being equal to 8·17 per cent.

The increased cost per train-mile is due to the increased cost of wages, fuel, and materials.

The following table shows particulars of the expenditure per train-mile :—

Year.	Train-mileage.	Engine-mileage.	Cost in Pence per Train-mile.		
			Locomotive Branch.	Car and Wagon Branch.	Total.
1908-9	7,458,236	10,442,829	20·22	5·34	25·56
1907-8	7,051,274	9,654,056	19·49	5·47	24·96

MAINTENANCE.

Mr. J. Burnett, Chief Engineer, reports as follows :—

Permanent-way.—The track generally is in good condition. The following statement shows the relaying done during the year :—

Main line relaid with 70 lb. steel material	..	..	..	..	Miles. 93
Branch lines, 30 lb. and 40 lb., relaid with second-hand material removed from main line	..	..	..	..	30
Total relaying for the year	..	..	..	..	123

A fair amount of relaying has been done during the past four or five years. It is still desirable, in view of the increase of traffic and in engine-weights, to keep ahead of pressing requirements.

Between 1st April, 1899, and 31st March last (ten years) 929 miles of track have been relaid, viz. :—

New material :—							Miles.
56 lb. material (steel)	..	..	..	..	..	..	171
70 lb. „ „	..	..	..	..	..	..	595½
100 lb. „ „	..	..	..	..	..	..	1½
Total (new material)							768
Second-hand 53 lb. and 56 lb. material removed from main line (relaid with 70 lb.) and laid on branch lines, replacing 30 lb. and 40 lb.							161
Total relaying, 1st April, 1899, to 31st March, 1909							929

The expenditure on track renewals, which includes relaying and the provision of new sleepers, during the ten years named amounts to £1,678,526.

Sleepers.—During the year 292,549 sleepers were put in the track.

Slips and Floods.—The Foxton branch was flooded in August, interrupting traffic for four days.

In July heavy floods were experienced in South Canterbury and Otago, and a heavy snowfall in the latter district, causing delay to traffic and considerable damage to the railway-works.

Ballasting.—335,891 cubic yards of ballast were used on the track during the year. The plant on the Mount Egmont Branch has been kept fully employed for the most part in supplying metal for local road authorities.

Bridges, &c.—Bridges and culverts have been maintained in safe condition. Renewals and strengthening have been carried out.

The strengthening of the Hamilton Bridge has been completed. Approaches to new steel viaduct, Mangatewainui, Napier line, have been completed. Oreti Bridge on Mossburn Branch rebuilt.

Wharves.—Wharves have been maintained in good condition. The approaches for new wharf, Picton, have been in hand, about 51,000 cubic yards spoil having been used during the year.

Buildings.—A considerable number of houses have been erected. Mount Albert, Glenavy, and Fairlie station buildings, destroyed by fire, have been rebuilt, and several other new station buildings erected.

Miscellaneous Works.—Additions and improvements were carried out during the year amounting to £10,825, which was charged to working-expenses. The principal works were : Additions to stations and sidings at Auckland, Te Papa, Upper Hutt, Lyttelton, Coalgate, Clinton ; additions to water services at Lepperton, Greymouth, Addington Workshops, Thornbury, Colac ; additions to a number of houses ; electric lighting Invercargill workshops, goods-sheds Waitakerei and Eureka ; fire-brigade stations, and fencing workshops yard, Invercargill ; railway telephone-wire, Wellington to Petone ; engine turntable, Hawera ; fitting up store, Newmarket ; ash-pit, Timaru.

Additions to Open Lines.—The principal works carried out during the year were as follows :—

Signalling, interlocking, block-working, &c. Additions to station buildings, station yards, and sidings : Auckland, Newmarket (completion), Pukekohe (completion), Frankton Junction, Morrinsville, Te Aroha, Rukuhia, Kawa, Te Kuiti (completion), Puketutu, Waimiha, Te Koura, Marton (completion), Paekakariki, Pukerua, Ngaio, Thorndon, Port Aburiri (completion), Waipukurau, Masterton (completion), Lambton, Amberley (completion), Rangiora, Waimate (completion), Waihao Downs (completion), Otekaieke, Milton, Invercargill, Riversdale (completion).

Erection of new houses—on North Island Main Trunk and Manawatu line, Lepperton Junction, Eltham (completion), Culverden, Fairfax (completion).

Miscellaneous : Wharf extension, Nelson ; new wharf and storage-shed, Picton ; approaches Mangatewainui Viaduct ; additions to water services, Mercer, Te Kuiti (completion), Ohingaiti, Waiouru, Marton, Palmerston North, Paekakariki ; strengthening Hamilton Bridge ; additions to workshops, Napier (completion), Addington, Hillside, Invercargill ; engine turntables, Auckland and Christchurch Sections ; lighting engine depot, Invercargill ; new engine depot, Dunedin (part) ; store, Invercargill ; weighbridge, Lyttelton ; fencing line, Wanganui district (completion) ; flag-station between Takapau and Hatuma ; purchase of land at Longburn, Upper Hutt, and Paekakariki ; goods-shed, Wanganui Wharf ; pile-driving plant ; stockyards, Wangaehu ; stone-crushing plants, Te Kuiti (completion), Fernside (completion) ; overbridge, Timaru (completion) ; overbridge, Oamaru ; additions to goods-sheds, Auckland, New Plymouth, Waimate.

The cost of these works, charged to capital, amounts to £128,941.

Doubling and Improvement of Lines.—Auckland–Penrose : The double line between Newmarket and Penrose has been brought into use. The Parnell Bridge on one side is completed, and is being used for traffic ; the other half of the bridge is now in hand.

Hutt Road and Railway Improvement : These works have been carried on steadily, though slowly, a further length of track having been opened on the 27th September last, and the double line is now in use between Lower Hutt and Ngahauranga. The next portion to Kaiwarra will be ready in about three months.

The construction of the road is being proceeded with.

Addington–Rolleston : This work is approaching completion, and double-line working will soon be started.

Dunedin–Mosgiel : During the year fair progress has been made, the new line between Dunedin and Caversham being nearly completed. The Anderson's Bay Road, King Edward Road, and several other smaller steel bridges have been erected. The new engine-depot at Dunedin, so far as at present required, has been completed.

The Caversham Tunnel has been driven a distance of about 39 chains, leaving 32 chains to do.

Expenditure.—Maintenance cost £656,154, equal to about £257 per mile.

Mileage.—On 31st March the total mileage open for traffic was 2,681 miles 39 chains, an increase for the year of 209 miles 44 chains, of which the Wellington–Manawatu line, taken over from the company, and the remainder of the North Island Main Trunk form the principal part.

Private Sidings.—Grants issued during the year number eighteen, making the total at 31st March 337, with a total annual rental of £5,737.

Leases.—On 31st March 3,113 leases, with a total annual rental of £19,363, were current; 681 leases having been issued during the year.

Staff.—Maintenance working staff, 4,433 men; office staff, 135; total 4,568.

SIGNAL AND ELECTRICAL.

Signals, and Interlocking of Points and Signals.

During the past year forty-eight stations have been fitted with fixed semaphore signals, viz. :—

Waikino,	Shannon,	Ohingaiti,	Owhango,
Papatoetoe,	Plimmerton,	Utiku,	Piriaka,
Manurewa,	Fordell,	Waiouru,	Ongarue,
Paerata,	Puketutu,	Ohakune,	Paekakariki,
Buckland,	Kartigi,	Tokomaru,	Manakau,
Whangarata,	Te Awamutu,	Paraparaumu,	Ohau,
Whangamarino,	Waitangi,	Tariki,	Levin,
Ohinewai,	Karioi,	Otorohanga,	Koputaroa,
Ohaupo,	Horopito,	Otautau,	Porirua,
Taupiri,	Erua,	Turangarere,	Waikanae,
Wairangi,	Waimarino,	Rangataua,	Bunynthorpe,
Por-o-tarao,	Mangaonoho,	Raurimu,	Te Kuiti.

The signalling and interlocking at stations has worked with the most satisfactory results.

The following stations have been fully equipped with signalling and interlocking, and brought into operation during the year: Lepperton Junction, Ngahauranga, Milton, Clinton, Newmarket Junction (temporary scheme), Penrose Junction (temporary scheme), Addington Junction (temporary scheme), Hornby Junction (temporary scheme), Pukerua; also Newmarket, Remuera, Green Lane and Racecourse Platform, Ellerslie, and Penrose, complete schemes for double-line working; Turner's, Booth's, Gardner's, Palmer's sidings, also service siding near Burnside, have all been interlocked with the tablet system.

The work has been commenced at Marton, Ngaio, Tawa Flat, Ngaurukohu, Sockburn, Templeton, Islington, Parnell Tunnel and the rearrangement of Addington, Hornby, and Rolleston to suit double-line working.

The expenditure for the year on new works was £25,213 3s. 7d., and for maintenance £3,450 8s. 10d.

Block Working.

The electric train-tablet system of block working has worked with every satisfaction.

During the year 130 tablet instruments and 270 miles of line have been fitted and brought into operation, embracing the following sections: Marton to Mataroa, Mataroa to Waiouru, Frankton to Taumarunui, Taumarunui to Waiouru, and Wellington to Longburn (Manawatu line).

The following have been converted into switch-out stations: Papatoetoe, Papakura, Paerata, Buckland, Pokino, Whangamarino, Ohinewai, Taupiri, Horotiu, and service siding near Abbotsford. Ballast-siding, Ngawapurua Bridge, and Addington South signal-box have been installed as tablet stations.

The equipment of the sections from Woodville to Waipukurau, Pukeuri to Washdyke, Ngahere to Blackball, is in progress.

Automatic tablet-exchanging apparatus has been installed at eighty additional stations, and is giving every satisfaction. The Main Trunk line, Wellington to Auckland, is completed, and the equipment of the rest of the main lines not already installed is well in hand.

The installation of the electric lock and block system for double-line working has been completed and brought into operation between Newmarket and Penrose, and the work has been commenced on the double lines between Wellington–Lower Hutt, Christchurch–Rolleston, and Christchurch–Heathcote.

Telegraph and Telephone Facilities, and Electric Lighting.

During the year 822 miles of wire and 348 miles of poles have been erected and brought into use; also various alterations and additions have been made to improve existing lines.

Thirty-five Morse instruments and 118 telephones have been fixed and brought into operation, twenty-five additional and seven extension connections have been made with the public telephone exchanges, and eight portable telephones brought into use.

A number of old-pattern telephones have been replaced by new and modern ones.

Greater facilities are still needed in some of the districts to suit the more pressing requirements.

The electric light at stations where installed is giving every satisfaction.

During the year electric light has been installed in the workshops at Invercargill, the signals and yards at New Plymouth, signals and stockyards at Ngahauranga, and at Waitara and Te Aroha Stations.

The expenditure on the electric block working, telegraph and telephone facilities, and electric lighting for the year was,—

	£	s.	d.
New work	29,970	5	9
Maintenance	10,783	3	1
Public telephone-exchange connections	1,764	10	0

TRAFFIC.

Mr. H. Buxton, Chief Traffic Manager, reports as follows :—

South Island Main Line and Branches.

Revenue £1,241,021 ; an increase of £22,118.

The principal items were,—

	Number.	Number.
Passengers	4,306,169 ; increase,	140,377
Parcels, &c. .. .	545,722 ; „	5,595
Live-stock	2,408,611 ; decrease,	47,310
	Tons.	Tons.
Goods tonnage	2,018,469 ; increase,	31,960

The variations in the districts were approximately as follows :—

Christchurch District.—Revenue, £554,837 ; decrease, £4,163.

Passenger traffic shows an increase in all parts of the district. Parcels decreased slightly. Sheep and pigs decreased by 66,300 and 8,300 respectively. Last year the dry season caused a large movement of sheep. Lower prices this year have affected the carriage of pigs.

There was an improvement in wool, chaff, firewood, grain, and minerals, but large decreases in timber and merchandise, the net decrease being over 6,000 tons.

The decrease in merchandise was chiefly due to the smaller output of frozen meat.

Dunedin District.—Revenue, £412,937 ; increase, £19,107.

Passengers increased by over 85,000. About half of this increase was in the suburban area. The fine weather experienced during the principal holidays assisted the excursion traffic.

Parcels traffic also increased slightly.

Live-stock showed an improvement.

Lime, chaff, wool, timber, and grain increased ; while firewood, merchandise, coal, and other minerals decreased.

The net increase of tonnage was 13,300 tons.

The decrease (13,000 tons) in merchandise was due to diversion of shipping from Port Chalmers to Dunedin.

Invercargill District.—Revenue, £273,247 ; increase, £7,174.

A general improvement of passenger traffic took place throughout the district.

There was a small increase in goods receipts. Wool, grain, coal, and gravel show substantial increases ; but chaff, green flax, firewood, timber, and merchandise show a considerable falling-off.

Fewer sheep by 24,000 were carried. The local business was good, but the figures of the previous year were swelled by the movement of store stock for depasturage from and to the districts further north which were suffering from want of rain.

Lake Wakatipu Steamers.—Revenue, £6,438 ; decrease, £199.

Passengers increased, but goods and live-stock traffic were not quite up to the average. A severe winter affected the sheep and rabbit traffic, and the yield of grain was less in consequence of a dry summer.

Picton, Nelson, and West Coast Sections.

Picton Section.—Revenue, £26,014 ; increase, £872.

Increases in passengers, sheep, chaff, wool, and coal.

Decreases in firewood, timber, grain, and merchandise.

Nelson Section.—Revenue, £21,111 ; increase, £355.

The improvement in revenue is due chiefly to increased traffic in timber and minerals. Live-stock, wool, and merchandise increased slightly ; but firewood and grain show a falling-off.

Westport Section.—Revenue, £102,463 ; increase, £4,483.

Coal-exports increased by 35,500 tons.

Passenger traffic also shows an improvement.

Westland Section.—Revenue, £123,589 ; increase, £2,383.

There was a considerable improvement in the passenger traffic, which accounts for the increase of revenue.

The staple products, coal and timber, decreased.

The abandonment of the Tyneside Mine at Brunner, and the idleness of the Blackball Mine consequent upon labour troubles, were the chief causes of decrease in coal. The completion of the Blackball and Paparoa lines, now in course of construction, will cause considerable expansion of business in the near future.

Slackness in the building trade was answerable for a decrease of over 4,000,000 ft. in the timber-export.

North Island Main Line and Branches.

Revenue, £1,361,019 ; increase, £135,079.

The principal items of traffic were,—

	Number.	Number.
Passengers	5,184,254 ; increase,	509,349
Parcels, &c. .. .	432,699 ; „	17,113
Live-stock	2,897,172 ; „	614,606
	Tons.	Tons.
Goods	1,370,167 ; „	7,434

The approximate earnings of the different divisions were,—

Auckland District.—Revenue, £485,900; increase, £46,800.

Passengers increased by 228,000, chiefly at Auckland and suburban stations.

There was a decrease of 5,600 at Onehunga Wharf owing to the diversion of the traffic from the steamers to the Main Trunk line.

The visit of the American fleet was responsible for an increase of 70,000 passengers in the local traffic.

Parcels traffic increased about 30 per cent.

There was a slight falling-off in cattle, but sheep increased by 93,000.

All classes of goods traffic (except chaff, green flax, and firewood) show increases.

Wanganui District.—The inclusion of the Manawatu line in the Government railway system has entailed some alteration in the method of accounting during the last four months of the year. Comparisons with the figures of the previous year are therefore of little value. The figures which follow include the returns from the stations which were in the Wanganui district prior to the 7th December last.

Revenue, £398,500; increase, £36,100.

There were some local increases in the passenger traffic, but the bookings at New Plymouth fell off by 11,200 passengers as a result of the diversion of the Auckland traffic to the Main Trunk line.

There was a large increase in live-stock. Cattle increased by 5,600, and sheep by 280,000.

Grain increased by 4,600 tons, and wool by 1,865 tons. Timber showed little variation, but merchandise and minerals decreased slightly.

There was a good season for dairy-produce, and the export of butter and cheese increased by 3,200 tons.

Wellington-Napier District.—The figures for this district also are affected by the alteration in accounting for through traffic, and they include four months' traffic of the Manawatu line.

The revenue was £476,600, an increase of £52,100.

There was a very large increase in the number of passengers, over 90,000 additional being carried from stations between Te Aro and Lower Hutt.

The Manawatu line added 192,400 passengers.

Season tickets also increased considerably.

Parcels traffic decreased slightly.

There was an increase of 238,000 sheep.

Timber decreased on the Wairarapa-Napier line by 8,500,000 ft., owing to local supplies becoming exhausted, and dullness in the building trade. Firewood also decreased.

Other classes of traffic show increases due to the inclusion of the Manawatu stations.

North of Auckland Sections.

Kawakawa Section.—Revenue, £1,990; increase, £6.

Whangarei Section.—Revenue, £30,486; decrease, £80.

Increases in passengers, parcels, live-stock, firewood, grain, and merchandise.

Decreases in chaff, timber, and minerals.

The supply of timber is failing, and the output of coal from the local mines was affected by labour troubles.

Kaihu Section.—Revenue, £4,303; decrease, £124.

The failing timber-supply and the closing of the flax-mills are the causes of falling revenue.

Gisborne Section.

Revenue, £11,092; increase, £2,695.

The extension of this line is causing considerable accession of business. The mineral traffic decreased, but there were increases of wool, firewood, timber, and grain. The sheep traffic increased largely.

Average Late Arrival of Trains.

	Period ending													Average for Year, in Minutes.
	April 25.	May 23.	June 20.	July 18.	Aug. 15.	Sept. 12.	Oct. 10.	Nov. 7.	Dec. 5.	Jan. 2.	Jan. 30.	Feb. 27.	Mar. 31.	
<i>Express and Mail Trains.</i>														
Year ending 31st March, 1909	2.72	0.87	1.64	1.50	0.61	0.31	0.48	0.78	0.97	2.15	1.60	1.61	1.57	1.29
Year ending 31st March, 1908	3.55	1.22	0.98	1.36	0.50	0.82	1.99	0.81	0.98	2.18	1.44	1.43	1.32	1.43
<i>Long-distance Mixed Trains.</i>														
Year ending 31st March, 1909	3.22	1.97	2.10	1.32	1.17	1.30	1.04	1.12	1.30	2.01	1.76	2.74	3.42	1.88
Year ending 31st March, 1908	2.43	1.95	1.75	1.31	1.07	1.25	1.14	1.20	1.27	1.67	1.88	3.11	2.70	1.75
<i>Suburban Trains.</i>														
Year ending 31st March, 1909	0.55	0.33	0.58	0.34	0.40	0.28	0.16	0.22	0.16	0.49	0.42	0.52	0.31	0.36
Year ending 31st March, 1908	0.52	0.36	0.53	0.40	0.29	0.13	0.23	0.18	0.20	0.53	0.38	0.73	0.51	0.38

STORES.

Mr. H. Baxter, Stores Manager, reports as follows :—

The value of stores (purchased under the Railway vote) on hand on the 31st March, 1909, at the various depots amounted to £284,496 12s. 7d., as against £233,134 18s. 7d. on the 31st March, 1908, an increase of £51,361 14s.

The value of stores on hand on account of additions to open lines amounted to £30,692 13s. 9d. on the 31st March, 1909, as against £39,117 14s. 2d. on the 31st March, 1908, a decrease of £8,425 0s. 5d.

The total value of stores on hand has therefore increased during the past year by £42,936 13s. 7d.

The stock is in good order, has been carefully and systematically inspected, and is value for the amount stated.

The conduct of the staff as a whole has been very satisfactory.

I have, &c.,

T. RONAYNE,

General Manager.

The Hon. the Minister of Railways.

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ACCOMPANYING ANNUAL REPORT OF THE GENERAL MANAGER OF NEW ZEALAND
GOVERNMENT RAILWAYS, 1908-1909.

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RETURN NO. 1.
GENERAL REVENUE ACCOUNT for the Year ended 31st March, 1909.

Dr.		£		s.	d.	Cr.		£		s.	d.
To Cash in hand, freights, &c., outstanding at stations, 1st April, 1908	...	...	55,733	9	8	By Gross payment to Public Account	...	...	3,102,791	8	2
Revenue from passenger, parcels, and goods traffic, as per Return No. 5	...	...	2,929,525	10	11	Less Collections for refund	...	...	180,242	16	5
						Cash in hand, freights, &c., outstanding at stations, 31st March, 1909	...	...	2,922,548	11	9
									62,710	8	10
									£2,985,259	0	7
To Net payment to Public Account		...	2,922,548	11	9	By Working-expenses, as per Return No. 4	...	...	2,114,815	1	8
Less Cash in hand, freights, &c., outstanding, 1st April, 1908, as above	...	...	55,733	9	8	Balance—Net earnings, available for interest	...	...	814,710	9	3
			2,866,815	2	1	* Receipts as per Treasury accounts	...	...	£2,918,507	6	0
						Balance Refund Account, 31st March, 1908, as below	...	...	16,955	12	10
									2,935,462	18	10
						Balance Refund Account, 31st March, 1909, as below	...	...	12,914	7	1
									£2,922,548	11	9
Cash in hand, freights, &c., outstanding, 31st March, 1909, as above	62,710	8	10				£2,929,525	10	11

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COLLECTIONS for REFUND to HARBOUR BOARDS, SHIPPING COMPANIES, CARRIERS, &c., for the Year ended 31st March, 1909.

Dr.		£		s.	d.	Cr.		£		s.	d.
To Balance brought forward, 1st April, 1908	...	...	16,955	12	10	By Treasury payments	...	...	184,284	2	2
Collections for refund	...	...	180,242	16	5	Balance, 31st March, 1909, carried forward	...	...	12,914	7	1
									£197,198	9	3

H. DAVIDSON, Chief Accountant.

RETURN NO. 2.
GENERAL EXPENDITURE ACCOUNT for the Year ended 31st March, 1909.

DR.		CR.			
To Balance brought forward:—		By Liabilities outstanding at 31st March, 1908, brought forward		£	s. d.
Accounts due to the Department outstanding at 1st April, 1908,—				...	...
Other Government Departments, for stores, work done, &c....	35,384 4 6			...	156,471 6 11
Personal accounts, for stores, work done, &c. ...	3,291 10 4			...	...
	38,675 14 10			...	2,114,815 1 8
Stock of stores on hand at 1st April, 1908	...			...	...
	233,134 18 7			...	...
Recoveries to credit of Vote 19,—				...	...
Other Government Departments, for stores, work done, &c. ...	370,265 7 1			...	...
Personal accounts, for stores, work done, &c. ...	43,130 18 11			...	...
Miscellaneous recoveries	39,075 0 2			...	...
	452,471 6 2			...	...
Balance:—				...	...
Accounts due to Department outstanding at 31st March, 1909,—				...	...
Other Government Departments, for stores, work done, &c. ...	40,991 12 6			...	...
Personal accounts, for stores, work done, &c. ...	2,914 15 0			...	...
	43,906 7 6			...	...
Stock of stores in hand at 31st March, 1909	...			...	...
	284,496 12 7			...	...
	£3,052,160 14 10			...	...

H. DAVIDSON, Chief Accountant.

	Wagons.	Traffic.	Head Office.	Departmental Offices.	Lake Wakatipu Steamers.	Credit Recoveries.	Total
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Kaw	125 10 9	792 11 1	22 0 4	205 6 6	..	225 0 0	2,616 16 6
Wha	561 2 5	3,128 3 7	337 9 5	803 6 2	..	103 14 11	9,851 15 3
Kail	258 16 10	1,048 14 2	46 19 10	302 19 4	..	102 2 9	3,742 13 11
Gish	221 13 6	1,054 9 10	119 17 6	345 0 6	..	4 13 7	5,514 4 2
Nor	24,181 18 5	215,680 10 8	14,663 18 8	27,524 15 2	..	4,240 12 4	627,835 2 2
at							
Sou	21,775 6 1	241,743 17 5	13,461 11 5	24,524 5 8	..	6,900 1 5	661,243 3 2
at							
Wes	3,969 15 5	19,845 10 10	1,360 14 8	3,300 10 0	..	347 14 6	60,103 15 9
Wes	3,453 18 2	12,049 7 1	1,129 7 5	2,466 14 3	..	149 2 10	34,047 18 1
Nels	248 18 9	5,062 15 3	229 17 6	697 15 0	..	250 12 0	13,662 4 6
Pict	387 0 1	4,343 10 8	279 14 9	622 15 6	..	117 14 7	16,370 6 10
Lak	..	..	..	..	3,953 3 9	2 3 11	3,950 19 10
	55,184 0 5	504,749 10 7	31,651 11 6	60,793 8 1	3,953 3 9	12,443 12 10	1,438,939 0 2
Kaw	24 14 8	38 1 0	..	..	..	9 4 6	724 1 4
Wha	254 15 5	169 9 0	..	..	..	7 13 6	2,524 14 7
Kail	76 19 5	62 18 11	..	..	..	0 18 0	824 8 3
Gish	179 17 5	114 3 3	..	..	..	61 4 6	1,628 17 6
Nor	5,493 0 4	28,365 18 1	..	..	..	8,476 7 1	297,443 0 2
at							
Sou	0,427 0 8	25,031 9 11	..	..	..	16,815 15 5	255,261 7 5
at							
Wes	1,893 19 5	2,283 9 7	..	..	..	362 10 3	15,886 1 9
Wes	1,069 6 8	937 6 6	..	..	..	404 16 4	6,695 5 4
Nels	69 3 7	412 13 11	..	..	..	177 15 5	3,661 2 9
Pict	242 17 5	300 14 3	..	..	..	284 0 8	5,602 4 0
Lak	..	..	..	..	1,052 9 4	31 1 8	1,021 7 8
	29,731 15 0	57,716 4 5	..	..	1,052 9 4	26,631 7 4	591,272 10 9
Kaw	4 12 9	47 7 6	..	..	..	..	57 7 0
Wha	29 17 11	127 18 5	..	..	..	..	281 3 3
Kail	13 13 8	11 2 1	..	..	..	..	46 5 11
Gish	38 0 9	99 3 7	..	..	..	..	239 11 8
Nor	4,201 16 0	19,788 12 3	..	..	..	..	35,528 13 3
at							
Sou	6,206 13 2	17,397 5 11	..	..	..	..	40,591 14 8
at							
Wes	531 3 8	3,565 15 7	..	..	..	..	4,626 10 8
Wes	362 5 1	1,955 7 4	..	..	..	..	2,354 2 9
Nels	19 17 11	225 18 0	..	..	..	..	379 3 1
Pict	45 17 5	255 9 0	..	..	..	..	413 12 9
Lak	..	..	..	..	85 5 9	..	85 5 9
	1,453 18 4	43,473 19 8	..	..	85 5 9	..	84,603 10 9
	6,369 13 9	605,939 14 8	31,651 11 6	60,793 8 1	5,090 18 10	39,075 0 2	2,114,815 1 8

H. DAVIDSON, Chief Accountant.

51,274	2,602,782	9,654,056
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N, Chief Accountant.

RETURN No. 3.
CLASSIFIED EXPENDITURE for the Year ended 31st March, 1909.

Sections.	Maintenance of Way and Works.						Locomotive Power.						Carriages.	Wagons.	Traffic.	Head Office.	Departmental Offices.	Lake Wakatipu Steamers.	Credit Recoveries.	Total
	Permanent-way.	Structures.	Buildings.	Miscellaneous.	General Charges.	Total.	Working Locomotive.	Fuel and Water.	Oil, Tallow, &c.	Renewals and Repairs.	General Charges.	Total.								
WAGES AND SERVICES.																				
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Kawakawa	647 3 3	591 16 2	23 9 10	..	..	1,262 9 3	325 5 11	43 13 0	..	44 7 3	..	413 6 2	20 12 5	125 10 9	792 11 1	22 0 4	205 6 6	..	225 0 0	2,616 16 6
Whangarei	1,860 4 8	460 9 1	257 13 7	13 7 6	..	2,591 14 10	1,675 13 11	141 5 2	..	642 1 1	..	2,459 0 2	74 13 7	561 2 5	3,128 3 7	337 9 5	803 6 2	..	103 14 11	9,851 15 3
Kaihu	1,104 5 10	135 7 0	75 17 6	..	..	1,315 10 4	447 10 1	56 3 2	..	142 19 5	..	646 12 8	225 3 6	258 16 10	1,048 14 2	46 19 10	302 19 4	..	102 2 9	3,742 13 11
Gisborne	1,396 2 2	492 2 11	128 17 11	135 1 0	..	2,152 4 0	953 2 6	96 0 6	..	240 12 11	..	1,289 15 11	335 16 6	221 13 6	1,054 9 10	119 17 6	345 0 6	..	4 13 7	5,514 4 2
North Island Main Lines and Branches	117,255 19 5	40,803 9 7	16,651 16 1	2,142 13 4	..	176,853 18 5	108,261 9 0	9,789 12 10	..	37,198 6 9	..	155,249 8 7	17,921 4 7	24,181 18 5	215,680 10 8	14,663 18 8	27,524 15 2	..	4,240 12 4	627,835 2 2
South Island Main Lines and Branches	135,163 3 0	34,915 13 4	26,592 7 1	2,760 1 8	..	199,431 5 1	102,021 5 5	9,330 10 6	..	37,584 7 4	..	148,936 3 3	18,270 15 8	21,775 6 1	241,743 17 5	13,461 11 5	24,524 5 8	..	6,900 1 5	661,243 3 2
Westland	13,073 4 8	6,050 2 3	1,849 19 0	202 15 5	..	21,176 1 4	7,554 9 1	323 14 1	..	1,803 17 4	..	9,682 0 6	1,116 17 6	3,969 15 5	19,845 10 10	1,360 14 8	3,300 10 0	..	347 14 6	60,103 15 9
Westport	4,701 6 4	1,585 18 1	498 13 1	89 4 8	..	6,875 2 2	5,534 3 4	333 1 7	..	1,871 12 1	..	7,738 17 0	483 14 10	3,453 18 2	12,049 7 1	1,129 7 5	2,466 14 3	..	149 2 10	34,047 18 1
Nelson	3,370 0 6	1,633 19 0	293 8 1	86 0 8	..	5,383 8 3	1,455 3 5	48 17 5	..	488 0 9	..	1,992 1 7	298 0 2	248 18 9	5,062 15 3	229 17 6	697 15 0	..	250 12 0	13,662 4 6
Picton	3,477 7 5	3,633 6 11	316 5 6	19 18 8	..	7,446 18 6	2,211 3 9	91 13 5	..	948 12 8	..	3,251 9 10	156 12 1	387 0 1	4,343 10 8	279 14 9	622 15 6	..	117 14 7	16,370 6 10
Lake Wakatipu Steamers..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3,953 3 9	2 3 11	3,950 19 10
Totals	282,048 17 3	90,302 4 4	46,688 7 8	5,449 2 11	..	424,488 12 2	230,439 6 5	20,254 11 8	..	80,964 17 7	..	331,658 15 8	38,903 10 10	55,184 0 5	504,749 10 7	31,651 11 6	60,793 8 1	3,953 3 9	12,443 12 10	1,438,939 0 2
STORES.																				
Kawakawa	213 3 10	283 16 8	2 2 0	..	..	499 2 6	..	119 15 8	21 3 2	17 2 0	..	158 0 10	13 6 10	24 14 8	38 1 0	..	..	..	9 4 6	724 1 4
Whangarei	173 12 9	203 9 2	237 12 9	14 6 9	..	629 1 5	..	904 6 2	94 5 0	349 19 5	..	1,348 10 7	130 11 8	254 15 5	169 9 0	..	..	..	7 13 6	2,524 14 7
Kaihu	230 13 7	65 6 2	24 5 0	..	..	320 4 9	..	232 12 7	16 9 4	47 19 6	..	297 1 5	68 1 9	76 19 5	62 18 11	..	..	..	0 18 0	824 8 3
Gisborne	48 15 10	25 12 7	23 18 4	47 17 6	..	146 4 3	..	882 14 1	77 7 10	91 2 6	..	1,051 4 5	198 12 8	179 17 5	114 3 3	..	..	..	61 4 6	1,628 17 6
North Island Main Lines and Branches	75,035 5 6	14,684 5 2	11,586 15 2	3,128 4 3	..	104,434 10 1	..	117,266 5 2	6,929 13 2	21,730 18 11	..	145,926 17 3	11,699 1 6	15,493 0 4	28,365 18 1	..	..	..	8,476 7 1	297,443 0 2
South Island Main Lines and Branches	79,667 1 6	12,456 2 7	12,888 3 6	1,797 6 6	..	106,808 14 1	..	91,804 14 1	5,460 18 11	22,561 15 9	..	119,827 8 9	9,982 9 5	10,427 0 8	25,031 9 11	..	..	..	16,815 15 5	255,261 7 5
Westland	4,415 13 2	2,173 8 10	890 11 6	168 10 8	..	7,648 4 2	..	2,827 1 2	385 12 2	688 7 11	..	3,901 1 3	521 17 7	1,893 19 5	2,283 9 7	..	..	..	362 10 3	15,886 1 9
Westport	497 12 1	613 12 10	356 3 5	36 10 7	..	1,593 18 11	..	2,223 19 1	319 6 1	923 2 7	..	3,466 7 9	123 1 10	1,069 6 8	937 6 6	..	..	..	404 16 4	6,605 5 4
Nelson	1,442 8 7	213 9 4	201 16 3	74 2 2	..	1,931 16 4	..	945 13 4	82 3 8	262 13 3	..	1,290 10 3	134 14 1	69 3 7	412 13 11	..	..	..	177 15 5	3,661 2 9
Picton	1,628 15 7	1,200 19 0	393 6 10	23 19 11	..	3,247 1 4	..	1,444 9 8	149 14 3	395 5 11	..	1,989 9 10	106 1 10	242 17 5	300 14 3	..	..	..	284 0 8	5,602 4 0
Lake Wakatipu Steamers..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,052 9 4	31 1 8	1,021 7 8
Totals	163,353 2 5	31,920 2 4	26,604 14 9	5,290 18 4	..	227,168 17 10	..	218,651 11 0	13,536 13 7	47,068 7 9	..	279,256 12 4	22,977 19 2	29,731 15 0	57,716 4 5	..	..	1,052 9 4	26,631 7 4	591,272 10 9
MISCELLANEOUS.																				
Kawakawa	0 8 10	..	..	..	0 17 0	1 5 10	..	0 6 0	..	0 18 2	0 7 4	1 11 6	2 9 5	4 12 9	47 7 6	..	..	..	..	57 7 0
Whangarei	9 19 10	..	..	..	16 19 5	26 19 3	..	2 10 5	..	60 16 4	7 16 4	71 3 1	25 4 7	29 17 11	127 18 5	..	..	..	..	281 3 3
Kaihu	5 2 10	0 2 2	..	..	2 0 0	7 5 0	..	0 3 6	..	7 10 4	0 16 6	8 10 4	5 14 10	13 13 8	11 2 1	..	..	..	..	46 5 11
Gisborne	4 4 4	0 8 4	..	..	4 16 0	9 8 8	..	0 14 0	..	37 18 6	2 3 4	40 15 10	52 2 10	38 0 9	99 3 7	..	..	..	..	239 11 8
North Island Main Lines and Branches	536 14 9	233 4 5	7 19 8	66 4 2	1,145 10 9	1,989 13 9	..	170 7 10	..	6,351 6 4	629 4 0	7,150 18 2	2,397 13 1	4,201 16 0	19,788 12 3	..	..	..	..	35,528 13 3
South Island Main Lines and Branches	383 4 7	109 13 2	20 4 4	18 1 4	1,098 0 0	1,629 3 5	..	50 19 0	..	9,328 7 6	597 10 2	9,976 16 8	5,381 15 6	6,206 13 2	17,397 5 11	..	..	..	..	40,591 14 8
Westland	22 14 11	36 13 4	..	0 1 3	542 2 2	601 11 8	..	8 14 3	..	Cr. 9 10 8	30 16 8	30 0 3	Cr. 102 0 6	531 3 8	3,565 15 7	..	..	..	..	4,626 10 8
Westport	28 7 4	39 3 11	0 11 0	0 10 1	53 10 2	122 2 6	..	3 7 9	..	84 6 11	22 17 0	110 11 8	Cr. 196 3 10	362 5 1	1,955 7 4	..	..	..	..	2,354 2 9
Nelson	2 12 8	4 8 7	..	0 6 3	79 12 4	86 19 10	..	..	..	27 9 3	3 19 0	31 8 3	14 19 1	19 17 11	225 18 0	..	..	..	..	379 3 1
Picton	1 19 6	..	..	..	19 15 3	21 14 9	..	..	..	68 13 6	4 16 0	73 9 6	17 2 1	45 17 5	255 9 0	..	..	..	..	413 12 9
Lake Wakatipu Steamers..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	85 5 9	..	85 5 9
Totals	995 9 7	423 13 11	28 15 0	85 3 1	2,963 3 1	4,496 4 8	..	237 2 9	..	15,957 16 2	1,300 6 4	17,495 5 3	7,598 17 1	11,453 18 4	43,473 19 8	..	..	85 5 9	..	84,603 10 9
Grand totals	446,397 9 3	122,646 0 7	73,321 17 5	10,825 4 4	2,963 3 1	656,153 14 8	230,439 6 5	239,143 5 5	13,536 13 7	143,991 1 6	1,300 6 4	628,410 13 3	69,480 7 1	96,369 13 9	605,939 14 8	31,651 11 6	60,793 8 1	5,090 18 10	39,075 0 2	2,114,815 1 8
H. DAVIDSON, Chief Accountant.																				

H. DAVIDSON, Chief Accountant.

CLASSIFIED STATEMENT showing REVENUE and EXPENDITURE, and Proportion of each Class of Expenditure to Mileage and Revenue, for the Year ended 31st March, 1909.

H. DAVIDSON, Chief Accountant.

Revenue, for the Year ended 31st March, 1909.

Proportion of each Class of Expenditure to Mileage and Revenue.

Carriages and Wagons.			Traffic.			Head Office.			Departmental Offices.			Credit Recoveries.			Total.		
Per Cent. of Revenue.	Per Mile of Railway per Annum.	Per Train-mile.	Per Cent. of Revenue.	Per Mile of Railway per Annum.	Per Train-mile.	Per Cent. of Revenue.	Per Mile of Railway per Annum.	Per Train-mile.	Per Cent. of Revenue.	Per Mile of Railway per Annum.	Per Train-mile.	Per Cent. of Revenue.	Per Mile of Railway per Annum.	Per Train-mile.	Per Cent. of Revenue.	Per Mile of Railway per Annum.	Per Train-mile.
£	£	d.	£	£	d.	£	£	d.	£	£	d.	£	£	d.	£	£	d.
9'62	23'92	5'88	44'12	109'75	27'01	1'11	2'75	0'68	10'32	25'67	6'32	11'77	29'28	7'21	170'78	424'78	104'53
3'53	46'79	4'26	11'24	148'93	13'57	1'11	14'67	1'34	2'64	34'92	3'18	0'37	4'84	0'44	41'52	550'32	50'15
15'07	38'15	11'88	26'09	66'05	20'57	1'09	2'76	0'86	7'04	17'82	5'55	2'40	6'06	1'89	107'20	271'38	84'51
9'25	45'65	7'59	11'43	56'39	9'38	1'08	5'33	0'89	3'11	15'35	2'55	0'59	2'93	0'49	66'56	328'40	54'61
5'58	79'98	4'82	19'38	278'03	16'77	1'08	15'45	0'93	2'02	29'01	1'75	0'93	13'40	0'81	70'59	1,012'52	61'07
5'80	55'84	5'53	22'90	220'25	21'81	1'08	10'43	1'03	1'98	19'01	1'88	1'91	18'38	1'82	77'12	741'79	73'45
6'42	62'02	9'36	20'79	200'92	30'31	1'10	10'64	1'61	2'67	25'81	3'89	0'57	5'55	0'84	65'23	630'38	95'10
5'17	170'84	11'84	14'58	482'01	33'41	1'10	36'43	2'53	2'41	79'57	5'53	0'54	17'87	1'24	42'06	1,390'24	96'38
3'72	17'72	2'94	27'01	128'56	21'34	1'09	5'18	0'86	3'31	15'74	2'61	2'03	9'66	1'60	83'86	399'19	66'27
3'67	28'10	3'47	18'83	144'11	17'77	1'08	8'23	1'01	2'39	18'32	2'26	1'54	11'82	1'46	86'05	658'42	81'19
5'67	65'12	5'34	20'73	237'91	19'50	1'08	12'43	1'02	2'08	23'87	1'96	1'33	15'33	1'26	72'18	828'37	67'89
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	78'56	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	72'19	...	...
10'56	26'18	7'20	40'30	99'96	27'48	0'91	2'27	0'62	9'44	23'42	6'44	12'77	31'67	8'71	145'98	362'09	99'54
4'33	57'60	5'37	11'03	146'58	13'67	0'92	12'20	1'14	2'40	31'91	2'98	0'43	5'69	0'53	40'05	532'26	49'65
20'13	52'41	15'73	24'64	64'17	19'26	0'91	2'38	0'71	6'37	16'58	4'98	3'00	7'81	2'35	110'46	287'62	86'31
4'90	20'93	3'59	16'06	68'61	11'78	0'91	3'88	0'67	4'47	19'11	3'28	...	...	...	69'06	295'04	50'67
5'86	81'36	5'12	17'33	240'38	15'12	0'91	12'63	0'79	1'78	24'71	1'55	1'20	16'62	1'04	67'66	938'78	59'05
5'90	55'87	5'51	22'01	208'28	20'53	0'91	8'62	0'85	1'74	16'47	1'62	1'66	15'75	1'55	76'44	723'38	71'31
6'76	65'64	9'89	19'11	185'41	27'93	0'92	8'94	1'35	2'42	23'47	3'53	0'37	3'58	0'54	64'04	621'52	93'64
4'53	143'33	9'79	14'61	461'79	31'56	0'93	29'26	2'00	2'22	70'12	4'79	1'31	41'35	2'82	45'71	1,444'59	98'72
3'87	18'68	3'03	24'27	117'15	18'99	0'91	4'40	0'71	3'02	14'55	2'36	3'86	18'63	3'02	83'05	400'87	64'98
2'76	20'41	2'54	19'33	142'97	17'82	0'91	6'74	0'84	2'40	17'77	2'21	1'11	8'25	1'03	70'49	521'22	64'94
5'84	65'05	5'47	19'40	216'27	18'20	0'91	10'16	0'86	1'85	20'61	1'73	1'39	15'49	1'30	70'57	786'53	66'18
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	81'02	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	70'59	...	...

H. DAVIDSON, Chief Accountant.

s, &c.													
d.		Timber.		Grain.		Merchandise.		Minerals.		Total.		Grand Total Tonnage.	
q.		Tons	c. q.	Tons	c. q.	Tons	c. q.	Tons	c. q.	Tons	c. q.	Tons	c. q.
Kaw	o	333	11 o	1,093	1 o	1,751	3 o	1,643	9 o	5,067	4 o	5,162	8 o
Wh	o	36,911	19 o	2,440	18 o	3,774	0 o	108,088	5 o	153,033	2 o	153,241	2 o
Kai	o	7,643	8 o	652	12 o	2,131	8 o	128	11 o	11,093	7 o	11,104	16 o
Gis	o	2,958	11 o	2,204	4 o	1,889	15 o	4,267	4 o	15,475	18 o	17,368	7 o
N. I	o	236,142	7 o	208,321	19 o	279,947	5 o	501,688	8 o	1,370,166	15 o	1,513,851	13 o
at													
S. I	o	183,535	19 o	545,083	7 o	403,673	14 o	650,512	5 o	2,018,469	1 o	2,129,985	3 o
at													
Wes	o	104,415	2 o	8,235	0 o	19,530	11 o	377,915	14 o	513,586	3 o	515,120	14 o
Wes	o	3,036	13 o	2,232	0 o	5,245	2 o	676,653	1 o	692,698	16 o	692,820	19 o
Nels	o	5,022	10 o	7,532	11 o	3,769	0 o	10,132	15 o	33,779	16 o	34,247	12 o
Pict	o	2,193	10 o	14,210	6 o	6,653	3 o	10,085	14 o	52,140	9 o	55,975	5 o
Lak	o	666	2 o	1,787	8 o	1,605	12 o	933	2 o	6,363	16 o	6,529	19 o
St													
o		582,859	12 o	793,793	6 o	729,970	13 o	2,342,048	8 o	4,871,874	7 o	5,135,407	18 o
Kaw	o	333	10 o	1,052	15 o	1,828	2 o	979	19 o	4,926	6 o	5,056	14 o
Wh	o	39,992	9 o	2,414	19 o	3,384	12 o	112,318	2 o	160,348	2 o	160,487	11 o
Kai	o	8,001	9 o	774	10 o	2,028	17 o	165	5 o	11,953	9 o	11,973	6 o
Gis	o	1,827	10 o	1,462	15 o	1,957	3 o	5,850	9 o	13,498	1 o	13,682	2 o
N. I	o	244,888	12 o	194,402	14 o	273,313	13 o	500,676	10 o	1,362,733	9 o	1,480,469	15 o
at													
S. I	o	197,773	0 o	500,984	6 o	440,305	17 o	641,064	15 o	1,986,509	2 o	2,098,314	10 o
at													
Wes	o	114,005	18 o	8,145	12 o	17,137	6 o	394,091	2 o	538,133	18 o	539,402	5 o
Wes	o	2,455	2 o	2,337	6 o	5,009	3 o	646,392	11 o	662,812	2 o	662,902	0 o
Nels	o	4,090	12 o	8,058	11 o	3,578	13 o	8,372	13 o	31,852	17 o	32,206	5 o
Pict	o	2,936	16 o	17,867	5 o	7,340	7 o	8,872	5 o	55,021	13 o	58,369	6 o
Lak	o	587	0 o	2,067	17 o	1,763	5 o	1,129	3 o	6,745	5 o	7,312	0 o
St													
o		616,891	18 o	739,568	10 o	757,646	18 o	2,319,912	14 o	4,834,534	4 o	5,070,175	14 o

Mileage.		
Train.	Shunting and Ballasting.	Total.
No.	No.	No.
7,802	2,975	10,777
60,581	21,076	81,657
13,101	6,442	19,543
32,448	12,342	44,790
776,097	1,337,139	5,113,236
27,165	1,326,826	4,453,991
203,440	116,614	320,054
107,322	108,341	215,663
64,109	8,941	73,050
66,171	43,897	110,068
...
58,236	2,984,593	10,442,829
6,984	2,987	9,971
59,171	22,009	81,180
13,596	5,672	19,268
27,466	4,826	32,292
371,431	1,097,922	4,469,353
35,663	1,214,055	4,349,718
198,933	112,571	311,504
108,872	108,810	217,682
63,669	8,882	72,551
65,489	25,048	90,537
...
51,274	2,602,782	9,654,056

N, Chief Accountant.

RETURN No. 5.

COMPARATIVE STATEMENT of PASSENGER and GOODS TRAFFIC for the Year ended 31st March, 1909.

Sections.	Length Open for Traffic.	Passengers.					Total Season Tickets.	Parcels, &c.					Live-Stock, Goods, &c.															Grand Total Tonnage.
		First Class.		Second Class.		Total.		Parcels.	Horses.	Carriages.	Dogs.	Total.	Drays, &c.	Cattle.	Calves.	Sheep.	Pigs.	Total.	Equivalent Tonnage for Live-Stock, &c.	Chaff, Lime, &c.	Wool.	Firewood.	Timber.	Grain.	Merchandise.	Minerals.	Total.	
1908-9.	Miles.	Single.	Return.	Single.	Return.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.
Kawakawa ...	8	662	282	4,437	4,314	9,695	39	186	42	4	80	312	3	30	2	2,086	4	2,125	95 4 0	60 0 0	...	186 0 0	333 11 0	1,093 1 0	1,751 3 0	1,643 9 0	5,067 4 0	5,152 8 0
Whangarei ...	23	12,553	8,130	33,412	39,088	93,183	634	2,579	10	..	101	2,600	22	305	1	2,283	99	2,710	208 0 0	306 0 0	...	1,512 0 0	36,911 19 0	2,440 18 0	3,774 0 0	108,088 5 0	153,033 2 0	153,241 2 0
Kaihu ...	17	536	768	14,263	14,742	30,309	70	2,285	94	9	171	2,559	3	14	1	131	...	149	11 9 0	18 0 0	9 8 0	510 0 0	7,643 8 0	652 12 0	2,131 8 0	128 11 0	11,093 7 0	11,104 16 0
Gisborne ...	23	3,694	3,842	33,490	39,934	80,960	629	2,727	35	6	516	3,284	13	56	63	46,454	150	46,736	1,892 9 0	300 0 0	1,684 4 0	2,172 0 0	2,958 11 0	2,204 4 0	1,889 15 0	4,267 4 0	15,475 18 0	17,368 7 0
N. Island Main Lines and Branches	1,061	246,835	581,686	1,309,123	3,046,610	5,184,254	109,067	395,873	9,103	1,194	26,529	432,699	1,044	92,732	7,462	2,713,336	83,642	2,898,216	143,684 18 0	58,634 0 0	33,266 16 0	52,166 0 0	236,142 7 0	208,321 19 0	279,947 5 0	501,688 8 0	1,370,166 15 0	1,513,851 13 0
S. Island Main Lines and Branches	1,299	168,618	575,934	806,373	2,755,244	4,306,169	74,772	514,850	8,776	1,194	20,902	545,722	1,204	49,433	6,928	2,318,738	33,512	2,409,815	111,516 2 0	104,730 0 0	98,993 16 0	31,940 0 0	183,535 19 0	545,083 7 0	403,673 14 0	650,512 5 0	2,018,469 1 0	2,129,985 3 0
Westland ...	130	11,429	23,052	106,362	231,826	372,669	5,317	22,270	563	53	894	23,780	74	2,439	72	16,932	92	19,609	1,534 11 0	1,656 0 0	161 16 0	1,672 0 0	104,415 2 0	8,235 0 0	19,530 11 0	377,915 14 0	513,586 3 0	515,120 14 0
Westport ...	31	928	2,296	27,440	79,760	110,424	641	6,079	27	...	242	6,348	5	55	2	2,508	22	2,592	122 3 0	402 0 0	...	5,130 0 0	3,036 13 0	2,232 0 0	5,245 2 0	676,653 1 0	692,698 16 0	692,820 19 0
Nelson ...	48	2,324	6,720	32,283	72,982	114,309	915	5,304	71	45	468	5,888	12	51	75	11,003	23	11,164	467 16 0	2,574 0 0	579 0 0	4,170 0 0	5,022 10 0	7,532 11 0	3,769 0 0	10,132 15 0	33,779 16 0	34,247 12 0
Pictou ...	34	7,123	23,896	27,616	74,290	132,925	447	2,867	238	20	708	3,833	44	101	3	94,393	82	94,623	3,834 16 0	13,146 0 0	2,755 16 0	3,096 0 0	2,193 10 0	14,210 6 0	6,653 3 0	10,085 14 0	52,140 9 0	55,975 5 0
Lake Wakatipu Steamers	...	1,819	10,710	2,944	6,774	22,247	16	6,273	165	25	187	6,650	3	59	...	3,025	...	3,687	166 3 0	840 0 0	495 12 0	66 0 0	666 2 0	1,787 8 0	1,605 12 0	933 2 0	6,363 16 0	6,529 19 0
Totals	2,674	456,521	1,237,316	2,397,743	6,365,564	10,457,144	192,547	961,293	19,124	2,550	50,798	1,033,765	2,427	145,275	14,609	5,211,489	117,626	5,491,426	263,533 11 0	182,666 0 0	137,916 8 0	102,620 0 0	582,859 12 0	793,793 6 0	729,970 13 0	2,342,048 8 0	4,871,874 7 0	5,135,407 18 0
1907-8.	Miles.	Single.	Return.	Single.	Return.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.	Tons c. q.
Kawakawa ...	8	813	298	4,146	6,326	11,583	26	147	63	8	70	288	1	68	1	2,676	4	2,750	130 8 0	618 0 0	...	114 0 0	333 10 0	1,052 15 0	1,828 2 0	979 19 0	4,926 6 0	5,056 14 0
Whangarei ...	23	12,440	8,746	30,429	39,608	91,223	628	2,507	3	1	135	2,646	23	192	5	1,434	159	1,813	139 9 0	888 0 0	...	1,350 0 0	39,992 9 0	2,414 19 0	3,384 12 0	112,318 2 0	160,348 2 0	160,487 11 0
Kaihu ...	17	755	1,196	16,165	13,764	31,880	85	2,117	42	4	160	2,323	8	11	1	303	...	323	19 17 0	360 0 0	5 8 0	618 0 0	8,001 9 0	774 10 0	2,028 17 0	165 5 0	11,953 9 0	11,973 6 0
Gisborne ...	20	3,457	3,668	31,941	35,592	74,658	658	2,127	7	...	509	2,643	11	50	3	3,880	164	4,108	184 1 0	240 0 0	1,158 4 0	1,002 0 0	1,827 10 0	1,462 15 0	1,957 3 0	5,850 9 0	13,498 1 0	13,682 2 0
N. Island Main Lines and Branches	885	237,934	516,038	1,236,827	2,685,006	4,674,905	102,586	381,208	9,028	1,267	24,083	415,586	1,126	87,866	9,655	2,101,977	83,068	2,283,692	117,736 6 0	59,179 0 0	31,283 0 0	58,990 0 0	244,888 12 0	194,402 14 0	273,313 13 0	500,676 10 0	1,362,733 9 0	1,480,469 15 0
S. Island Main Lines and Branches	1,288	167,418	543,428	823,820	2,631,126	4,165,792	74,819	510,064	8,194	1,432	20,437	540,127	1,179	44,020	6,649	2,363,366	41,886	2,457,100	111,805 8 0	90,198 0 0	84,303 4 0	31,880 0 0	197,773 0 0	500,984 6 0	440,305 17 0	641,064 15 0	1,986,509 2 0	2,098,314 10 0
Westland ...	125	10,450	19,580	94,831	212,008	336,869	4,619	18,654	502	47	844	20,047	69	1,733	37	16,000	359	18,198	1,268 7 0	2,802 0 0	146 0 0	1,806 0 0	114,005 18 0	8,145 12 0	17,137 6 0	394,091 2 0	538,133 18 0	539,402 5 0
Westport ...	31	603	2,178	25,307	73,510	101,598	419	5,457	39	1	205	5,702	11	19	4	1,948	...	1,982	89 18 0	666 0 0	...	5,952 0 0	2,455 2 0	2,337 6 0	5,009 3 0	640,392 11 0	662,812 2 0	662,902 0 0
Nelson ...	43	2,357	6,660	33,739	71,220	113,976	904	5,873	94	36	473	6,476	18	40	7	8,247	21	8,333	353 8 0	2,634 0 0	498 8 0	4,620 0 0	4,090 12 0	8,058 11 0	3,578 13 0	8,372 13 0	31,852 17 0	32,206 5 0
Pictou ...	34	7,200	22,732	27,523	75,126	132,641	406	3,006	280	10	629	3,925	79	258	4	80,231	317	80,889	3,347 13 0	11,420 0 0	2,811 0 0	3,774 0 0	2,936 16 0	17,867 5 0	7,340 7 0	8,872 5 0	55,021 13 0	58,369 6 0
Lake Wakatipu Steamers	...	1,837	9,970	2,688	7,096	21,591	24	6,405	171	23	221	6,820	5	127	1	13,938	9	13,180	566 15 0	762 0 0	388 0 0	48 0 0	587 0 0	2,067 17 0	1,763 5 0	1,129 3 0	6,745 5 0	7,312 0 0
Totals	2,474	444,424	1,134,494	2,327,416	5,850,382	9,756,716	185,174	937,565	18,423	2,829	47,766	1,006,583	2,530	134,384	16,367	4,593,100	125,987	4,872,368	235,641 10 0	169,767 0 0	120,593 4 0	110,154 0 0	616,891 18 0	739,568 10 0	757,646 18 0	2,319,912 14 0	4,834,534 4 0	5,070,175 14 0

Sections.	Revenue.										Mileage.		
	Ordinary Passengers.	Season Tickets.	Parcels, Luggage, Mails, and Miscellaneous.	Total Coaching.	Goods.	Miscellaneous.	Rents and Commission.	Total Goods.	Grand Total Revenue.	Train.	Shunting and Ballasting.	Total.	
1908-9.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	No.	No.	No.	
Kawakawa ...	505 10 1	46 5 0	109 8 3	661 3 4	1,283 1 3	20 8 7	25 4 0	1,328 13 10	1,989 17 2	7,802	2,975	10,777	
Whangarei ...	3,964 1 10	438 8 7	398 10 6	4,801 0 11	25,154 11 11	293 10 11	230 11 9	25,684 14 7	30,485 15 6	60,581	21,076	81,657	
Kaihu ...	1,408 5 1	88 12 8	306 4 6	1,803 2 3	2,309 13 6	27 0 4	103 12 3	2,500 6 1	4,393 8 4	13,101	6,442	19,543	
Gisborne ...	4,771 6 6	430 8 2	459 4 6	5,660 19 2	4,741 0 5	473 13 11	215 19 0	5,430 13 4	11,091 12 6	32,448	12,342	44,790	
N. Island Main Lines and Branches	487,947 18 1	48,700 15 11	90,273 18 1	626,922 12 1	692,802 14 9	21,147 16 8	20,145 14 11	734,096 6 4	1,361,018 18 5	3,776,097	1,337,139	5,113,236	
S. Island Main Lines and Branches	376,320 2 2	36,703 4 3	87,835 14 8	500,859 1 1	696,619 12 7	24,157 2 5	19,385 7 4	740,162 2 4	1,241,021 3 5	3,127,165	1,326,826	4,453,991	
Westland ...	23,088 16 10	1,831 7 10	4,022 2 5	28,942 7 1	90,253 14 9	3,298 0 6	1,094 15 9	94,646 11 0	123,588 18 1	203,440	116,614	320,054	
Westport ...	5,886 17 6	492 3 7	753 8 0	7,132 9 1	89,846 18 11	4,991 17 2	491 15 3	95,330 11 4	102,463 0 5	107,322	108,341	215,663	
Nelson ...	6,453 17 8	758 9 11	1,114 7 4	8,326 14 11	11,226 14 2	822 4 5	735 1 9	12,784 0 4	21,110 15 3	64,109	8,941	73,050	
Pictou ...	8,143 8 8	479 18 7	933 15 2	9,557 2 5	14,034 19 3	1,916 0 2	506 8 2	16,457 7 7	26,014 10 0	66,171	43,897	110,068	
Lake Wakatipu Steamers	2,920 6 9	278 4 0	833 8 0	4,031 18 9	2,370 16 5	Cr. 0 10 4	35 7 0	2,405 13 1	6,437 11 10	...	...	...
Totals ...	921,410 11 2	90,247 18 6	187,040 1 5	1,198,698 11 1	1,630,703 17 11	57,147 4 9	42,975 17 2	1,730,826 19 10	2,929,525 10 11	7,458,236	2,984,593	10,442,829	
1907-8.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	No.	No.	No.	
Kawakawa ...	560 9 2	44 13 3	113 17 7	719 0 0	1,229 15 10	12 9 10	23 0 6	1,265 6 2	1,984 6 2	6,984	2,987	9,971	
Whangarei ...	3,852 14 10	418 12 7	381 19 10	4,653 7 3	25,203 11 8	419 2 11	290 4 3	25,912 18 10	30,566 6 1	59,171	22,009	81,180	
Kaihu ...	1,415 15 10	90 19 3	273 16 11	1,780 12 0	2,519 7 3	27 7 4	99 4 1	2,645 18 8	4,426 10 8	13,596	5,072	18,668	
Gisborne ...	4,105 7 4	449 16 9	405 17 11	4,961 2 0	3,047 16 2	194 5 5	193 16 1	3,435 17 8	8,396 19 8	27,400	4,820	32,220	
N. Island Main Lines and Branches	415,836 1 0	37,746 11 4	82,620 17 5	536,203 9 9	653,376 13 6	18,598 15 8	17,760 17 4	689,730 6 6	1,225,939 16 3	3,371,431	1,097,922	4,469,353	
S. Island Main Lines and Branches	366,396 11 11	35,254 12 0	85,759 4 1	487,410 8 0	692,360 18 5	20,607 7 9	18,524 9 7	731,492 15 9	1,218,903 3 9	3,335,663	1,214,955	4,549,618	
Westland ...	20,647 11 8	1,656 4 9	3,686 0 6	25,989 16 11	91,021 13 4	3,257 10 11	936 18 5	95,216 2 8	121,205 19 7	198,933	112,571	311,504	
Westport ...	5,321 18 4	373 1 8	737 7 5	6,432 7 5	85,944 9 11	5,105 13 9	437 8 5	91,547 12 1	97,979 19 0	108,872	108,810	217,682	
Nelson ...	6,492 2 8	736 6 5	1,144 6 3	8,372 15 4	10,741 11 11	832 1 7	810 0 0	12,383 13 0	20,750 8 10	63,660	8,882	72,542	
Pictou ...	7,975 0 3	467 7 6	904 13 8	9,347 1 5	14,267 2 10	1,018 17 4	508 15 10	15,794 16 0	25,141 17 5	65,489	25,048	90,537	
Lake Wakatipu Steamers	2,869 13 2	266 6 10	847 12 9	3,983 12 9	2,615 0 11	9 16 9	28 0 0	2,652 17 8	6,030 10 5	...	...	...
Totals ...	835,473 6 2	77,504 12 4	176,875 14 4	1,089,853 12 10	1,582,328 1 9	50,143 9 3	39,612 14 6	1,672,084 5 0	2,701,937 18 4	7,051,274	2,602,782	9,654,056	

H. DAVIDSON, Chief Accountant.

RETURN No. 6.

ESTIMATED AMOUNT of Expenditure on Construction of Railways, Rolling-stock, &c., to 31st March, 1909; Net Revenue, and Rate of Interest earned on Capital expended on Opened Lines for Year ended same Date.

Section.	COST OF CONSTRUCTION, ETC.		Net Revenue.	Rate of Interest earned.
	Opened Lines.	Unopened Lines.		
	£	£	£	£ s. d.
Kawakawa	92,773	..	-1,408	..
Whangarei	177,996	75,852	17,828	10 0 4
Kaibu	67,918	63,187	..	..
Gisborne	186,421	..	-310	..
North Island Main Lines and Branches ..	12,219,646	32,102	3,709	2 0 11
South Island Main Lines and Branches ..	12,233,165	124,717	400,212	3 15 6
Westland	1,462,921	397,052	283,925	2 6 7
Westport	500,718	310,408	42,972	2 19 5
Nelson	381,275	34,248	59,366	11 17 1
Picton	367,630	31,219	3,408	0 19 2
Lake Wakatipu steamer service	16,436	82,914	3,628	0 19 9
In suspense—	..	..	1,380	8 7 11
Surveys, North Island .. .. .	..	31,141	..	..
Miscellaneous, North Island .. .. .	..	5,169	..	..
Surveys, South Island .. .. .	..	8,039	..	..
Miscellaneous, South Island .. .. .	..	5,168	..	..
P.W.D. stock of permanent-way .. .. .	..	88,624	..	..
W.R.D. stock of A.O.L. stores	30,693	..	..	..
W.R.D. Deposit Account for permanent-way material	25,000	..	..	..
	£27,762,592	£1,289,840	£814,710	£3 2 7
Total cost of opened and unopened lines at 31st March, 1909	£29,052,432		£814,710	£2 16 1

NOTE.—The amount stated in this return as the cost of construction of opened lines includes the Provincial and General Government expenditure on railways. It also includes the Midland Railway and expenditure by the Greymouth and Westport Harbour Boards on railways and wharves under the provisions of section 7 of "The Railways Authorisation Act, 1885," the information regarding the last mentioned being furnished by the respective Boards. The rate of interest earned has been computed on cost proportionately to the time during which lines taken over by the Working Railways Department within the financial year were earning revenue, thus:—

Gisborne Section—	
Puha-Waikohu	Opened for traffic 27th May, 1908.
North Island Main Lines and Branches—	
Tauhoa-Wayby	Opened for traffic 18th May, 1908.
Mataroa-Waiouru	1st July, "
Taumarunui-Erua	9th Nov., "
Erua-Waiouru	14th Feb., 1909.
Wellington-Longburn	Taken over 7th Dec., 1908.
South Island Main Lines and Branches—	
McNab-Waikaka	Opened for traffic 27th Nov., 1908.
Westland Section—	
Reefton-Cronadun	Opened for traffic 1st Sept., 1908.
Nelson Section—	
Tadmire-Kiwi	Opened for traffic 18th Dec., 1908.

H. DAVIDSON, Chief Accountant.

RETURN No. 7.

EXPENDITURE under Vote for ADDITIONS to OPEN LINES, charged to Capital Account, for the Year ended 31st March, 1909.

	Amount,	Total Expenditure.
	£ s. d.	£ s. d.
Material on hand at 31st March, 1908 .. .. .	.. .. .	39,117 14 2
Expenditure charged to Vote 95 by Treasury .. .. .	.. .. .	389,671 17 9
		428,789 11 11
Less material on hand at 31st March, 1909 .. .. .	.. .. .	30,692 13 9
Expenditure on Works, &c.—		
Way and Works Branch	128,941 3 6	
Locomotive Branch	269,155 14 8	
		398,096 18 2

WAY AND WORKS BRANCH: PARTICULARS OF WORKS, ETC.

Section.	Work, &c.	Amount.	Total.
		£ s. d.	£ s. d.
North Island Main Lines and Branches	Sidings, loading-banks, stockyards, crossings, &c. ..	6,651 12 6	
	Additions to station buildings and extension of station yards, and other facilities	30,865 1 9	
	Dwellings for accommodation of staff	12,096 12 3	
	Additional works, water services, &c., for Locomotive Department	3,560 2 0	
	Turntables	1,450 10 1	
	Bridge-work, Hamilton	5,897 18 4	
	Ballast-quarry and plant	1,373 4 4	
	Stone-crushing plant	418 1 11	
	Pile-driving plant	444 14 2	
	Viaduct, Mangatewainui	3,023 8 6	
	Land	648 18 6	
	Fencing	294 1 1	
	Wharf-shed, Wanganui	1,687 0 2	
	Workshop additions, Napier	346 4 8	
	Signals and interlocking	12,083 3 4	
	Tablet-working	12,540 4 8	
	Telegraphs and telephones	2,420 2 6	
			95,801 0 9
South Island Main Lines and Branches	Sidings, loading-banks, stockyards, crossings, &c. ..	1,521 15 8	
	Additions to station buildings and extension of station yards, and other facilities	5,099 1 1	
	Additions to dwellings	1,873 9 3	
	Additional works for Locomotive Department	1,508 1 7	
	Turntables	634 5 7	
	Workshop additions, Addington	1,174 7 5	
	Workshop additions, Hillside	351 5 1	
	Workshop additions, Invercargill	1,448 19 5	
	Weighbridge	314 18 2	
	Overbridge, Timaru	222 2 9	
	Overbridge, Oamaru	357 13 5	
	Land	103 18 4	
	Signals and interlocking	2,923 10 1	
	Tablet-working	1,601 19 2	
	Telegraphs and telephones	312 12 6	
			19,447 19 6
Westland	Telegraphs and telephones .. .. .	.. .. .	54 6 5
Nelson	Wharf-extension .. .. .	.. .. .	7,526 8 9
Picton	New wharf, Picton	5,780 6 10	
	Storage-shed, Picton	331 1 3	
			6,111 8 1
			£128,941 3 6

RETURN NO. 7—continued.

LOCOMOTIVE BRANCH: PARTICULARS OF ROLLING-STOCK, ETC.

Description of Stock ordered.	Order.	Number Incomplete on March 31, 1908.	Number Complete on 31st March, 1909.	Number Incomplete on 31st March, 1909.	Expenditure in Year ended 31st March, 1909.
					£ s. d.
Carriages, Class A, 1905-1906 programme ..	Q-6	..	..	..	1,538 0 3
Brake-vans, Class F, 1905-1906 programme ..	R-6	..	..	..	3 8 0
Wagons, four-wheel, 1905-1906 programme ..	S-6	..	..	..	1,822 9 4
Carriages, Class A, 1906-1907 programme ..	W-6	20	14	6	7,397 17 2
Brake-vans, Class F, 1906-1907 programme ..	X-6	3	3	..	982 7 10
Wagons, four-wheel, 1906-1907 programme ..	Y-6	287	259	28	20,483 9 11
Wagons, bogie, 1906-1907 programme ..	Z-6	20	10	10	2,464 11 2
Carriages, Class A, for North Island Main Trunk Railway ..	B-7	40	30	10	36,437 12 3
Carriages, refreshment, for North Island Main Trunk Railway ..	C-7	4	4	..	3,817 2 3
Brake-vans, Class F, for North Island Main Trunk Railway ..	D-7	8	4	4	2,139 3 5
Locomotives, Class A (contract) ..	F-7	18	10	8	34,334 18 3
Wagons, four-wheel, 1907-1908 programme ..	G-7	560	199	361	12,775 11 8
Postal cars, 50 ft. ..	H-7	10	10	..	6,868 14 4
Wagons, four-wheel, Class Q ..	I-7	99	30	69	10,753 10 10
Locomotives, Class X ..	K-7	2	2	6	35,462 19 0
Cranes, steam ..	L-7	2	2	..	1,287 13 1
Locomotives, Class Wf ..	M-7	9	8	1	18,472 19 1
Tarpaulins, 1907-1908 programme ..	O-7	75	75	..	95 17 2
Carriages, Class A, 1908-1909 programme ..	P-7	28	..	28	3,268 18 5
Brake-vans, Class F, 1908-1909 programme ..	Q-7	18	..	18	665 13 10
Wagons, bogie, 1908-1909 programme ..	R-7	55	..	55	2,812 12 8
Wagons, four-wheel, 1908-1909 programme ..	S-7	751	82	669	49,984 15 0
Brake-vans, Fell ..	T-7	1	..	1	303 17 7
Wagons for carrying stone ..	U-7	20	20	..	698 1 5
Tarpaulins, 1908-1909 programme ..	V-7	1,000	675	325	1,932 17 5
Grab coaling-crane ..	W-7	1	1	..	1,284 13 2
Machinery for workshops ..	..	..	..	..	10,956 5 8
Fit Wf 502 with Westinghouse brake ..	..	..	..	..	109 14 6
Total ..	..	..	..	..	£269,155 14 8
Total locomotives ..	..	35	20	15	..
" carriages ..	..	102	58	44	..
" brake-vans ..	..	30	7	23	..
" wagons, bogie ..	..	75	10	65	..
" wagons, four-wheel ..	..	1,697	570	1,127	..
" cranes ..	..	2	2	..	..
" tarpaulins ..	..	1,075	750	325	..

EXPENDITURE under the Hutt Railway and Road Improvement Acts, 1903 and 1905, for the Year ended 31st March, 1909.

<i>Railway Capital Account:—</i>	£ s. d.	£ s. d.
Straightening and doubling Wellington-Hutt Railway ..	53,950 14 6	
Less profit on sale of debentures, as per Treasury accounts ..	127 2 9	
		53,823 11 9
<i>For Recovery in terms of Act:—</i>		
New Hutt Road (including land for same) ..	12,457 2 5	
Less profit on sale of debentures, as per Treasury accounts ..	29 7 3	
		12,427 15 2
		<u>£66,251 6 11</u>

EXPENDITURE under "The Railways Improvements Authorisation Act, 1904," charged to Capital Account for the Year ended 31st March, 1909.

	£ s. d.
Auckland-Penrose, duplication of line ..	31,005 1 1
Addington-Rolleston, ..	37,510 6 5
Dunedin-Mosgiel, duplication and deviation of line ..	73,018 14 0
	<u>£141,534 1 6</u>
Less profit on sale of debentures, as per Treasury accounts ..	15 0 8
	<u>£141,519 0 10</u>

RETURN NO. 8.

RETURN of REVENUE received by Railway Department from other Departments of the Public Service for the Year ended 31st March, 1909.

Department.	Passengers.	Mails.	Goods.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Defence	6,284 11 7	..	2,502 0 11	8,786 12 6
Police	2,284 16 5	..	462 2 7	2,746 19 0
Public Works	1,463 3 1	..	31,896 12 1	33,359 15 2
Mines and State Coal-mines	389 9 1	..	36,147 5 10	36,536 14 11
Agricultural	2,005 10 1	..	1,881 19 6	3,887 9 7
Lands and Survey and Forests	269 19 7	..	698 13 9	968 13 4
Roads	440 5 4	..	1,198 17 4	1,639 2 8
Customs	52 19 1	..	9 1 5	62 0 6
Internal Affairs	1,924 16 10	..	12 7 7	1,937 4 5
Mental Hospitals	324 5 0	..	1,076 2 6	1,400 7 6
Marine and Machinery	608 2 5	..	28 5 11	636 8 4
Prisons	345 19 4	..	128 10 0	474 9 4
Education	15,876 10 1	..	339 10 1	16,216 0 2
Labour	2,058 4 3	..	12 13 6	2,070 17 9
Lands and Income Tax	996 17 5	..	..	996 17 5
Justice	879 1 3	..	21 10 7	900 11 10
Tourist and Health Resorts	251 15 7	..	964 18 11	1,216 14 6
Industries and Commerce	3 13 2	..	..	3 13 2
Public Trustee	25 0 0	..	0 4 3	25 4 3
Government Printer .. .. .	..	..	207 11 0	207 11 0
Legislative	3 9 0	..	..	3 9 0
Stamps and Deeds	36 19 8	..	0 4 6	37 4 2
Public Health	573 5 4	..	10 16 3	584 1 7
Old-age Pensions	42 5 7	..	0 7 5	42 13 0
Postal and Telegraph	2,032 13 9	48,997 1 5	3,995 5 0	55,025 0 2
Native	247 10 8	..	14 4 5	261 15 1
Valuation	278 0 0	..	13 0 8	291 0 8
Immigration	1 4 5	..	..	1 4 5
Finance	1 4 2	..	..	1 4 2
Totals	39,701 12 2	48,997 1 5	81,622 6 0	170,320 19 7

H. DAVIDSON, Chief Accountant.

RETURN NO. 9.

STATEMENT of SEASON TICKETS issued for the Year ended 31st March, 1909.

Description.	Number.	Amount.
		£ s. d.
Travellers' tickets, all lines... .. .	5	317 10 0
Travellers' tickets, North Island	72	2,644 4 3
Travellers' tickets, South Island	36	1,869 10 0
Reporters' tickets	78	776 7 1
Sectional tickets, North Island	174	4,694 19 3
Sectional tickets, South Island	279	7,860 13 6
Tourists' tickets, all lines	444	3,374 0 0
Tourists' tickets, North Island	2,228	10,089 10 0
Tourists' tickets, South Island	368	1,888 10 0
Fifty-trip commutation tickets (ordinary)	2,820	2,019 5 6
Fifty-trip commutation tickets (family)	1,734	2,572 2 4
School tickets	20,191	12,110 17 11
Twenty-trip commutation tickets	740	522 3 10
Twelve-trip workmen's tickets	45,227	6,913 5 0
Weekly workmen's tickets	102,262	10,271 9 3
All other season tickets	15,889	22,323 10 7
Totals	192,547	90,247 18 6

H. DAVIDSON, Chief Accountant.

STATEMENT showing CLASSIFICATION of EXPENDITURE on MAINTENANCE of WAY and WORKS for the Year ended 31st March, 1909.

RETURN NO. 10.

Classification of Work.	SECTIONS.												Total.									
	Kawakawa.		Whangarei.		Kaihu.		Gisborne.		North Island Main Lines and Branches.		South Island Main Lines and Branches.			Westland.		Westport.		Nelson.		Picton.		
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.		£	s. d.	£	s. d.	£	s. d.	£	s. d.	
Track-surfacing	498	18 8	1,386	11 9	955	17 9	1,305	4 5	86,447	19 2	99,211	8 0	9,335	9 8	3,369	11 9	2,532	17 2	2,637	13 3	207,681	11 7
Track-renewals	305	0 9	176	3 8	217	19 10	2 15 5	87,214	19 1	96,851	11 0	6,004	1 3	787	0 6	1,974	19 4	2,145	19 8	195,680	10 6	
Ballasting	7	1 11	320	17 9	158	11 2	45 8 9	12,129	5 0	11,593	15 5	952	4 8	864	1 10	49	15 7	115	8 7	26,236	10 8	
Banks, cuttings, ditches, tunnels ..	49	14 7	160	4 1	7	13 6	95 13 9	7,035	16 5	7,556	14 8	1,219	17 2	206	11 8	257	9 8	209	1 0	16,798	16 6	
Bridges, culverts, drains	440	0 3	101	0 9	92	11 10	281 6 8	33,871	4 11	25,162	10 11	4,476	16 3	876	8 3	579	1 1	1,426	0 11	67,307	1 10	
Fences, gates, cattle-stops, hedges ..	6	6 3	300	16 9	0	6 2	17 16 1	7,252	9 11	8,708	1 3	758	6 2	99	11 2	474	12 7	217	11 10	17,835	18 2	
Roads, approaches, &c. .. ..	..	..	39	15 5	..	..	167 18 7	2,134	11 8	2,076	7 5	258	2 1	66	12 8	24	1 8	38	14 10	4,806	4 4
Water-services, signals, cranes, appliances	14	4 0	69	14 3	102	3 2	41 2 6	9,957	1 4	11,329	5 5	1,075	10 11	516	17 8	249	15 7	204	18 9	23,560	13 7	
Wharves	415	2 4	152	11 1	5	14 2	10 0 0	2,505	11 4	205	4 1	1,691	9 0	679	5 1	524	6 0	2,946	19 7	9,136	2 8	
Buildings	25	11 10	495	6 4	100	2 6	152 16 3	28,246	10 11	39,500	14 11	2,740	10 6	855	7 6	495	4 4	709	12 4	73,321	17 5	
Miscellaneous .. ..	..	..	27	14 3	..	..	182 18 6	5,337	1 9	4,575	9 6	371	7 4	126	5 4	160	9 1	43	18 7	10,825	4 4
General charges	0	17 0	16	19 5	2	0 0	4 16 0	1,145	10 9	1,098	0 0	542	2 2	53	10 2	79	12 4	19	15 3	2,963	3 1	
Totals	1,762	17 7	3,247	15 6	1,643	0 1	2,307 16 11	283,278	2 3	307,869	2 7	29,425	17 2	8,501	3 7	7,402	4 5	10,715	14 7	656,153	14 8	
Rate per mile opened	220	7 2	141	4 2	96	12 11	102 13 2	298	10 6	238	12 3	230	1 11	274	4 8	166	18 5	315	3 4	257	12 7	

H. DAVIDSON, Chief Accountant.

Sections.	SCHOOLS, FACTORIES, AND FRIENDLY SOCIETIES.					HOLIDAY EXCURSIONS.			GROSS TOTAL—SCHOOL AND HOLIDAY EXCURSIONS.		
	Schools, Factories, and Friendly Soc's. Children not exceeding 15 Years of Age.	Schools only. Senior Scholars over 15 but not exceeding 23 Years of Age, and Teachers.	Schools, and Factories, and Friendly Societies. Adults.	Total.	Revenue. £ s. d.	1st Class.	2nd Class.	Total.	Revenue. £ s. d.	Number of Tickets.	Revenue. £ s. d.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Kawakawa	38	...	152	190	6 6 8	35	524	559	32 14 8	749	39 1 4
Whangarei	264	...	250	514	19 18 1	57	1,079	1,136	118 9 0	1,650	138 7 1
Kaihu	407	21	182	610	26 18 9	28	994	1,022	102 8 6	1,632	129 7 3
Auckland	4,161	930	4,676	9,767	637 16 4	8,474	145,369	153,843	32,293 9 2	163,610	32,931 5 6
Gisborne	486	15	281	782	29 0 0	147	7,268	7,415	572 9 7	8,197	601 9 7
Wanganui	4,725	1,141	3,629	9,495	659 2 4	10,542	66,839	77,381	19,769 13 8	86,876	20,428 16 0
Wellington-Napier	10,277	2,080	4,562	16,919	828 9 0	37,921	117,780	155,701	29,460 2 1	172,620	30,288 11 1
Pictou	926	198	852	1,976	115 7 11	2,180	8,659	10,839	1,187 12 10	12,815	1,303 0 9
Nelson	2,119	454	461	3,034	124 10 11	1,318	7,451	8,769	900 17 3	11,803	1,025 8 2
Westport	115	17	87	219	10 1 3	76	4,837	4,913	471 14 0	5,132	481 15 3
Westland	3,656	443	3,898	7,997	568 18 7	1,964	21,380	23,344	3,071 2 2	31,341	3,640 0 9
Christchurch	13,504	2,047	16,334	31,885	2,286 0 6	28,642	140,155	168,797	35,574 9 11	200,682	37,860 10 5
Dunedin	8,643	942	11,463	21,048	1,149 19 0	25,131	92,036	117,167	28,564 13 3	138,215	29,714 12 3
Invercargill	5,878	978	5,752	12,608	1,178 16 6	5,797	53,496	59,293	14,351 10 2	71,901	15,530 6 8
Totals { 1909	55,199	9,266	52,579	117,044	7,641 5 10	122,312	667,867	790,179	166,471 6 3	907,223	174,112 12 1
{ 1908	51,031	8,163	53,886	113,080	7,604 10 4	113,617	618,518	732,135	141,519 16 11	845,215	149,124 7 3
Increase	4,168	1,103	...	3,964	36 15 6	8,695	49,349	58,044	24,951 9 4	62,008	24,988 4 10
Decrease	...	...	1,307	...	...	...	...	...	...	...	...
Total, year ending—	63,598	5,949	38,467	108,014	7,246 5 9	50,511	239,164	289,675	50,232 12 11	397,689	57,478 18 8
31st March, 1896	44,610	5,993	33,925	84,528	5,616 2 8	58,464	313,724	372,188	63,439 0 0	456,716	69,055 2 8
31st March, 1897	39,963	5,398	35,064	80,425	5,569 18 1	66,012	383,569	449,581	80,832 8 1	530,006	86,392 6 2
31st March, 1898	45,748	6,192	39,955	91,895	6,215 11 8	70,531	411,747	482,278	84,794 15 6	574,173	91,010 7 2
31st March, 1899	37,839	5,616	31,164	74,619	4,752 3 10	81,528	501,176	582,704	96,154 7 5	657,323	100,906 11 3
31st March, 1900	38,864	5,602	34,550	79,016	5,234 16 8	87,544	541,624	629,168	102,932 10 9	708,184	108,167 7 5
31st March, 1901	42,506	5,736	37,708	85,950	5,466 16 9	95,628	588,813	684,441	136,813 0 1	770,391	142,279 16 10
31st March, 1902	41,540	6,048	41,555	89,143	6,050 11 3	84,448	517,566	602,014	103,279 8 6	691,157	109,329 19 9
31st March, 1903	50,364	6,975	54,344	111,683	7,424 19 7	100,417	594,967	695,384	125,634 4 0	807,067	133,049 3 7
31st March, 1904	52,742	7,359	53,558	113,659	7,490 16 0	100,968	592,485	693,453	130,068 16 9	807,112	137,559 12 9
31st March, 1905	55,478	7,715	57,027	120,220	7,882 16 1	110,823	626,852	737,675	140,939 16 3	857,895	148,822 12 4
31st March, 1906	48,044	7,837	59,783	95,664	6,514 18 4	125,280	731,132	856,412	194,185 2 9	952,076	200,700 1 1
31st March, 1907	51,031	8,163	53,886	113,080	7,604 10 4	113,617	618,518	732,135	141,519 16 11	845,215	149,124 7 3
31st March, 1908	55,199	9,266	52,579	117,044	7,641 5 10	122,312	667,867	790,179	166,471 6 3	907,223	174,112 12 1

RETURN N EXPENDITURE of each Station

als.	Ordinary Passengers.	Season Tickets.	Grain.	Merchan- dise.	Minerals.	Stations.
s. c.	£ s. d.	£ s. d.	Ts. c.	Ts. c.	Ts. c.	
7 4	286 16 6	5 17 6	984 14	1,219 6	716 5	KAWA KAWA SECTION—
6 5	211 18 7	12 9 0	108 7	531 17	927 4	Kawa Kawa.
	6 15 0	27 18 6	..	..	..	Opua.
	..	..	..	..	..	Head Office.
						General.
3 9	505 10 1	46 5 0	1,093 1	1,751 3	1,643 9	Totals.
5 18	3,156 11 7	245 6 6	446 14	1,138 8	105,142 7	WHANGAREI SECTION—
2 7	788 4 3	78 0 0	1,994 4	2,635 12	2,945 18	Whangarei.
	19 6 0	115 2 1	..	..	..	Hikurangi.
	..	..	..	..	..	Head Office.
						General.
8 5	3,964 1 10	438 8 7	2,440 18	3,774 0	108,088 5	Totals.
7 5	1,022 10 11	34 0 0	54 15	1,107 7	61 6	KAIHU SECTION—
1 6	371 7 2	..	597 17	1,024 1	67 5	Dargaville
	14 7 0	54 12 8	..	..	..	Kaihu.
	..	..				Head Office.

42,500	48,700 15 11	1 48,700 15 11	290,947 18	216,883	4 0 216,883	263,835	1,543	..	Totals
..	..	..	..	..	..	46,550 0 1	..	..	General
..	..	..	..	..	..	6,372 19 3	98	..	Tablet stations
..	..	..	796 11 0	..	..	1,662 3 8	..	..	Accountant
133	..	..	660 19 1	632	..	..	..	..	Head Office (Well'ton)
0 1	..	..	..	..	..	..	..	..	through traffic
92	..	..	..	..	..	..	..	..	Main Trunk Line
10	..	..	..	..	..	1,380 14 6	8	..	As required
1,312 1	2,373 0 6	2,373 0 6	338 15 4	11,729	0 11,729	5,231 16 0	36	17 1/2	Port Aburiri
0	..	..	8 15 3	6	..	..	..	..	through
60 1	92 18 6	92 18 6	008 12 3	547	..	341 12 11	2	11 1/2	Napier
23 1	..	..	288 14 7	206	..	..	..	..	through
1,269 1	671 17 8	671 17 8	401 10 3	7,670	1 7,670	2,589 12 1	17	14 1/2	Fardoon
0 1	..	..	4 13 1	3	..	..	..	..	through
61	12 9 0	12 9 0	454 5 0	159	..	212 2 11	1	10 1/2	Hastings
0	..	..	11 18 4	4	..	..	..	..	through
71	77 2 6	77 2 6	080 8 7	642	..	407 2 5	3	12 1/2	Te Aute
5	..	..	57 5 6	37	..	..	..	..	through
241 13	3 15 0	3 15 0	370 13 3	1,958	6 1,958	896 15 6	6	12 1/2	Kaikora
0	..	..	53 0 7	47	..	..	..	..	through
308	49 5 9	49 5 9	040 10 3	2,614	6 2,614	1,714 11 6	10	24	Waipawa
0	..	..	18 17 4	14	..	..	..	..	through
124	13 10 0	13 10 0	569 0 1	786	5 786	581 14 5	4	11	Waipukurau
1	..	..	14 9 6	5	..	..	..	..	through
81	5 13 4	5 13 4	457 5 2	584	..	457 13 4	3	11 1/2	Takapau
89	60 3 6	60 3 6	9 11 8	303	..	..	..	..	through
8 14	..	..	3907 8 5	111	..	481 18 1	3	12	Ormondville
566	361 8 0	361 8 0	103 8 6	3,975	7 3,975	3,266 14 7	19	14 1/2	Makotuku
3 10	..	..	42 14 9	94	..	..	..	..	through
475	301 2 6	301 2 6	414 3 2	2,479	11 2,479	4,210 5 11	29	16	Dannevirke
0 19	..	..	10 16 11	3	..	..	..	..	through
97 12 1	5 10 6	5 10 6	754 14 0	249	7 249	417 9 7	2	15 1/2	Woodville
6 16	..	..	32 2 10	45	..	..	..	..	through
238 14	59 6 6	59 6 6	303 5 4	1,524	1 1,524	1,137 13 1	7	14 1/2	Mangatainoka
						..	..	..	through
						..	..	..	Pahiatua

OUTWARD.

OUTWARD.																							
Stations.	Hours open.	No. of Hands employed.	Traffic Expenditure.	NUMBER OF TICKETS.					Number of Season Tickets.	Parcels.	Horses.	Carriages.	Dogs.	Drays, &c.	Trucks of Lime, Chaff, &c.	Cattle.	Calves.	Sheep.	Pigs.	Bales of Wool.	Trucks of Fire-wood.	Timber, Superficial Feet.	Grain.
				First-class Single.	First-class Return.	Second-class Single.	Second-class Return.	Total.															
KAWA KAWA SECTION—																							
Kawa Kawa ..	9	2	£ s. d. 518 6 8	360	74	2,558	1,466	4,458	5	66	24	2	40	2	..	17	..	2,057	4	..	10	71,600	108
Opua ..	9	3	158 9 6	302	67	1,879	631	2,879	34	120	18	2	40	1	10	13	2	29	..	..	21	78,500	98
Head Office ..	..	..	6 1 3	..	..	..	60	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
General ..	..	..	195 2 2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	..	5	877 19 7	662	141	4,437	2,157	7,397	39	186	42	4	80	3	10	30	2	2,086	4	..	31	150,100	1,09
WHANGAREI SECTION—																							
Whangarei ..	13	11	2,807 7 8	11,964	3,246	28,614	14,699	58,523	486	1,733	6	..	77	15	3	132	1	17	..	..	213	216,700	1,99
Hikurangi ..	9	3	468 17 7	589	819	4,798	4,725	10,931	144	846	4	..	24	7	48	173	..	2,266	99	..	39	16,393,700	44
Head Office ..	..	..	69 6 11	..	..	..	120	120	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
General ..	..	..	79 18 10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	..	14	3,425 11 0	12,553	4,065	33,412	19,544	69,574	634	2,579	10	..	101	22	51	305	1	2,283	99	..	252	16,610,400	2,44
KAIHU SECTION—																							
Dargaville ..	10	3	742 2 8	387	309	11,935	5,429	18,060	70	1,673	49	5	103	3	2	5	1	128	..	..	17	769,900	5
Kaihu ..	8	2	343 0 5	149	75	2,328	1,810	4,362	..	612	45	4	68	..	1	9	..	3	..	..	68	2,669,700	5
Head Office ..	..	..	9 10 1	..	..	..	132	132	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
General ..	..	..	28 2 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	..	5	1,122 15 2	536	384	14,263	7,371	22,554	70	2,285	94	9	171	3	3	14	1	131	..	..	85	3,439,600	63
GISBORNE SECTION—																							
Gisborne ..	12	5	723 0 1	3,217	1,374	28,398	16,461	49,450	461	1,804	24	5	388	11	8	29	45	1,543	26	..	46	685,500	1,77
Te Karaka ..	11	2	382 9 8	477	547	5,092	3,422	9,538	165	923	11	1	128	2	42	27	18	44,911	124	8,421	316	645,900	4
Head Office ..	..	..	26 3 9	..	..	..	84	84	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
General ..	..	..	136 3 2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	..	7	1,267 16 8	3,694	1,921	33,490	19,967	59,072	629	2,727	35	6	516	13	50	56	63	46,454	150	8,421	362	1,331,400	2,2
NORTH ISLAND MAIN LINES & BRANCHES—																							
Auckland (Passengers) ..	24	212	13,490 6 2	28,449	18,851	146,389	161,145	354,834	7,928	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" (Parcels) ..	..	..	15,768 9 3	..	..	..	..	..	..	52,164	192	3	1,244	284	562	147	14	191	793	..	4	2,414,300	49,6
" (Goods) ..	..	..	1,915 1 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Head Office ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Newmarket ..	18	18	2,498 15 11	3,568	2,995	22,271	25,499	54,333	2,642	2,666	23	16	469	3	1	..	..	20	..	..	2	24,300	1
Mount Eden ..	18	3	523 7 2	1,554	1,030	25,639	23,658	51,881	3,273	1,152	2	2	132	..	47	59	20	11	..	..	2	134,700	6
Avondale ..	17	3	471 2 8	408	806	14,417	25,861	41,492	8,246	448	7	..	59	..	2	122	30	1,060	..	12	15	55,300	1
Henderson ..	18	5	860 8 9	214	379	17,430	17,594	35,617	3,382	1,884	13	2	59	6	21	584	18	4,913	85	164	110	1,564,200	4
Helensville ..	13	12	2,176 16 4	2,506	1,371	19,892	15,572	39,341	216	2,796	97	8	182	14	5	4,028	211	24,341	107	2,455	394	4,066,800	1,4
Wellford ..	9	1	120 7 10	44	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Remuera ..	18	7	806 2 8	960	996	4,208	3,832	9,996	987	215	81	2	89	2	1	1,776	404	19,339	148	..	1	..	..
Ellerslie ..	24	6	695 15 6	1,466	1,866	15,863	22,809	42,064	4,809	250	121	2	123	..	2	6	..	1	..	..	..	..	..
Penrose ..	24	8	1,175 19 10	582	601	6,611	7,206	15,090	1,177	1,004	16	..	60	2	..	230	137	2,517	125	766	..	..	..
Onehunga Town Wharf ..	16	13	3,058 3 2	964	1,115	11,066	13,624	26,769	3,080	969	..	..	..	..	..	..	..	..	..	..	..	..	..
Otahuhu ..	24	4	542 6 0	649	832	8,135	15,333	24,949	3,971	12,403	35	5	213	2	120	241	..	7,640	52	105	3	6,500	7
Papakura ..	14	4	535 8 6	275	303	4,178	8,157	12,913	69	2,007	32	1	124	9	63	472	86	6,786	340	85	13	125,100	1
Drury ..	24	4	581 9 4	215	409	3,617	5,753	9,994	170	1,345	21	2	112	5	191	88	77	2,752	29	246	15	21,000	3
Pukekohe ..	22	6	770 6 3	593	551	6,887	9,055	17,086	112	2,516	88	11	223	7	528	2,480	378	5,865	104	80	2	17,800	3
Tuakau ..	12	3	331 1 9	175	163	3,815	5,199	9,352	47	2,795	23	..	37	4	111	527	32	8,218	54	394	..	..	..
Pokeno ..	17	3	425 18 10	175	163	3,815	5,199	9,352	47	2,795	23	..	37	4	111	527	32	8,218	54	394	..	..	..
Mercer ..	21	12	2,285 19 2	392	365	7,046	6,174	13,977	8	1,913	41	..	93	2	18	953	2	5,779	..	1,011	28	566,900	..
Huntly ..	24	7	1,136 7 0	446	303	5,533	5,545	11,327	54	1,612	24	5	117	4	13	1,131	99	6,982	114	155	6	681,300	..
Taupiri ..	11	2	254 16 11	179	148	2,181	2,891	5,399	9	800	12	1	45	1	44	1,084	4	12,843	433	402	2	645,600	1
Ngaruawahia ..	17	5	641 8 7	880	306	6,957	3,910	12,053	24	1,480	71	1	156	6	38	2,534	709	14,810	620	197	138	12,800	..
Frankton Junction ..	24	26	3,662 4 1	1,711	870	15,628	6,455	24,664	48	1,067	96	1	173	7	40	2,534	709	14,810	620	197	138	12,800	..
Hamilton ..	10	8	1,224 9 7	2,959	1,858	19,955	10,585	35,357	202	6,8,													

Stations.	Hours open.	No. of Hands employed.	Traffic Expenditure.	NUMBER OF TICKETS.					Total.	Number of Season Tickets.	Parcels.	Horses.	Carriages.	Dogs.	Drays, &c.	Trucks of Lime, Chaff, &c.	Cattle.	Calves.	Sheep.	Pigs.	Bales of Wool.	Trucks of Firewood.	Timber Superfeet.
				First-class Single.	First-class Return.	Second-class Single.	Second-class Return.																
NORTH ISLAND MAIN LINES & BRANCHES—continued.																							
Patea ..	12	7	£ s. d. 1,530 6 11	527	953	4,245	4,736	10,461	95	1,373	84	3	146	6	20	1,328	77	22,256	2,960	718	3	114	
Through ..	12	3	389 5 5	531	601	3,181	4,029	8,342	57	1,068	112	11	304	1	1	1,764	267	2,564	199	1,822	1	3	
Waitotara ..	12	2	327 11 10	244	408	1,553	2,893	5,098	21	812	26	6	157	2	4	1,077	27	39,440	1,036	1,822	1	3	
Through ..	12	2	300 11 9	115	114	1,705	1,600	3,534	24	2,507	47	4	148	3	78	301	50	8,131	174	2,585	5	7	
Kai Iwi ..	19	7	1,189 7 5	2,554	1,046	11,885	5,015	20,500	116	2,010	20	2	171	2	18	197	..	4,783	..	..	..	..
Through ..	19	7	..	272	54	517	176	1,019	..	158	1	..	9	..	..	152	..	4,755	149	461	1	20
Wanganui (Passengers) ..	19	98	10,920 15 0	10,139	8,233	40,158	26,217	84,767	310	..	..	..	..	..	..	..	..	1,685	..	..	..	..
Through ..	19	..	..	1,394	453	1,860	1,047	4,754	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wanganui (Parcels) ..	19	..	..	..	..	..	..	..	..	15,936	376	67	802	..	..	..	..	..	..	..	..	..
Through ..	19	..	..	..	..	..	..	..	..	1,039	56	2	29	..	..	..	..	..	..	..	..	..
Wanganui (Goods) ..	19	..	..	..	..	..	..	..	..	..	..	..	..	10	53	2,133	132	51,999	609	123	98	143
Through ..	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..	167	..	3,274	25	..	..	..
Wanganui (H. Office) ..	16	4	1,662 3 1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Through ..	16	4	563 16 4	593	343	2,909	3,177	7,022	29	2,270	83	..	143	4	99	136	9	13,345	256	4,819	5	1	
Turakina ..	16	4	580 0 1	335	270	2,655	2,497	5,757	16	1,482	46	12	128	..	76	303	36	3,405	..	..	..	..
Through ..	16	4	..	19	12	48	37	116	..	93	..	..	1	..	..	..	..	25,547	15	1,701	3	3
Greatford ..	12	3	481 12 4	871	659	2,219	2,298	6,047	1	613	78	4	127	1	110	296	..	5,156	..	..	..	..
Through ..	12	3	..	91	42	116	138	387	..	63	11	1	3	..	2	79	..	39,683	83	272	..	..
Halcombe ..	12	3	514 11 9	283	385	2,757	5,820	9,245	9	641	13	2	102	2	166	188	..	9,048	..	..	..	..
Through ..	12	3	..	33	12	60	61	169	..	46	..	..	..	..	..	..	..	20,016	330	664	41	143
Feilding (Coaching) ..	16	11	1,886 17 2	4,135	3,682	16,543	13,656	38,016	40	4,717	218	28	544	..	..	..	..	4,571	..	..	..	..
Through ..	16	11	..	731	290	1,238	747	3,006	..	795	53	11	14	..	..	..	..	..	..	..	..	..
Feilding (Goods) ..	16	..	..	..	..	..	..	..	..	..	..	..	..	9	69	2,730	99	144,462	3,289	6,761	75	91
Through ..	16	..	..	..	..	..	..	..	..	..	..	..	..	2	3	584	..	43,490	1,058	1,614	2	..
Palmerston N. (Passen- gers) ..	17	88	12,058 7 11	11,310	8,882	63,323	13,829	127,344	434	..	..	..	..	..	..	..	..	..	..	..	..	..
Through ..	17	..	..	3,234	1,397	11,467	4,617	20,735	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palmerston N. (Parcels) Through ..	17	..	..	..	..	..	..	..	..	15,923	478	125	1,244	..	..	..	..	..	..	..	..	..
Palmerston N. (Goods) Through ..	17	..	..	..	..	..	..	..	..	3,185	99	28	230	..	..	..	..	..	..	..	..	..
Ashhurst ..	12	2	357 16 9	656	601	5,472	4,883	11,672	18	1,925	89	12	135	7	156	3,206	38	65,702	1,218	2,143	40	218	
Through ..	12	2	..	27	17	91	75	210	..	27	5	..	6	..	13	249	29	15,644	1,011	2,009	58	147	
Longburn ..	14	7	1,068 9 0	891	929	5,221	4,846	11,878	14	1,677	28	3	77	3	540	1,727	161	41,434	3,621	1,325	32	173	
Through ..	14	7	..	11,282	3,635	27,351	14,198	56,516	..	16,630	275	66	576	10	19	1,409	72	21,807	2,155	42	32	1,090	
Foxton ..	13	6	1,652 5 4	641	877	8,132	10,706	20,446	83	1,366	122	2	121	3	122	66	5	454	..	2,512	23	100	
Through ..	13	6	..	1	3	26	13	46	..	109	21	..	1	..	1	10	..	605	..	..	..	..
Shannon ..	13	3	169 0 7	198	142	2,300	2,500	5,230	13	1,068	14	..	39	..	7	241	10	13,349	380	654	51	186	
Levin ..	12	4	187 0 9	548	571	3,027	2,982	7,128	14	1,749	51	5	68	1	2	501	29	12,428	711	560	40	289	
Otaki ..	15	3	193 2 3	543	333	2,908	2,052	5,836	35	2,104	23	1	80	3	..	538	26	11,188	31	556	21	72	
Paekakariki ..	17	11	558 17 0	108	765	2,522	4,982	8,377	7	1,315	13	4	42	1	28	129	1	21,359	..	565	15	223	
Johnsonville ..	19	4	258 16 10	356	1,219	2,172	6,739	10,480	844	981	31	1	78	..	..	154	8	5,771	..	170	..	..
Thorndon (Coach'ng) (Goods) ..	As re- quired	109	4,637 8 10	9,318	10,378	25,438	38,611	83,715	1,005	19,869	70	26	603	..	..	..	..	..	..	..	..	..
Lambton (Pas'ng'rs) (Parcels) ..	19	62	11,085 4 9	14,876	63,730	56,438	158,290	293,385	7,661	..	..	..	..	4	24	43	..	551	..	..	2	208
Through ..	19	..	..	..	..	..	..	..	..	28,964	217	64	806	..	..	..	..	..	..	..	..	..
Wharf ..	As re- quired	57	9,512 3 11	..	..	..	..	..	..	..	..	..	..	6	853	316	..	1,735	..	6,987	6	2,553
Te Aro ..	15	8	1,340 0 8	2,904	15,183	7,321	16,169	71,577	6,026	6,331	..	..	..	..	..	..	..	..	..	..	..	..
Ngahauranga ..	19	6	977 2 4	468	1,422	6,082	13,939	21,911	2,339	663	2	1	276	..	2	95	53	683	..	..	..	..
Through ..	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Petone ..	19	13	2,395 2 8	1,732	20,855	17,097	102,107	111,791	21,919	981	6	17	323	..	3	104	..	954	..	..	..	..
Through ..	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lower Hutt ..	19	17	2,793 17 11	4,605	23,021	19,089	70,099	116,814	13,499	22,825	259	13	502	3	..	54	..	794	..</				

INWARD.										Stations.
Calves.	Sheep.	Pigs.	Bales of Wool.	Trucks of Fire-wood.	Timber, Superficial Feet.	Grain.	Merchan-dise.	Minerals.		
										NORTH ISLAND MAIN LINES & BRANCHES— <i>continued.</i>
7	38	18,065	282	4,009	72	476,700	Ts. c. 8,329 12	Ts. c. 1,191 1	Ts. c. 7,335 16	Patea.
..	76	8,901	210	..	70	432,300	0 5	22 6	..	Through.
26	..	10	..	..	1	2,400	1,113 6	906 11	2,058 17	Waverley.
..	25	9,320	67	..	30½	119,100	16 2	51 6	..	Through.
2	..	..	..	..	..	..	641 17	500 18	940 17	Waitotara.
..	..	1,315	23	1	41	85,700	1 0	2 13	..	Through.
5	..	..	..	..	..	..	465 1	307 2	2,650 6	Kai Iwi.
..	1	5,889	60	..	91½	749,800	2 0	10 9	..	Through.
..	..	..	..	..	..	..	171 12	183 12	690 9	Aramoho.
..	..	..	..	..	..	..	..	21 1	..	Through.
..	..	..	..	..	..	..	..	..	..	Wanganui (Passengers).
..	..	..	..	..	..	..	..	..	..	Through.
..	..	..	..	..	..	..	..	..	..	Wanganui (Parcels).
..	..	..	..	..	..	..	..	..	..	Through.
..	102	131,534	454	22,725	365	8,926,000	1,880 17	2,954 18	921 12	Wanganui (Goods).
18	..	27	..	6	..	2,000	10 1	240 4	36 18	Through.
..	..	2,662	70	..	55	153,900	..	..	..	Wanganui (H. Office).
..	..	34	..	..	..	..	720 5	520 4	841 14	Fordell.
..	..	2,837	15	204	63	150,000	6 19	8 11	..	Through.
..	..	..	..	..	..	26,800	759 10	345 18	247 1	Turakina.
..	..	8,214	51	10	56	197,000	6 19	18 7	..	Through.
..	..	..	..	..	..	200	539 19	474 11	233 1	Greatford.
..	..	6,011	8	1	1	51,100	37 8	94 16	12 8	Through.
..	..	..	..	..	..	..	420 9	264 15	257 7	Halcombe.
..	..	..	..	..	..	..	4 16	88 17	..	Through.
..	..	..	..	..	..	..	..	..	..	Feilding (Coaching).
..	..	..	..	..	..	..	..	..	..	Through.
..	4	26,812	1,015	59	107½	1,896,400	2,702 9	2,880 3	2,510 10	Feilding (Goods).
..	10	70	..	..	2	15,500	863 17	2,435 11	33 19	Through.
..	..	..	..	..	..	..	..	..	..	Palmerston N. (Passen.).
..	..	..	..	..	..	..	..	..	..	Through.
..	..	..	..	..	..	..	..	..	..	Palmerston N. (Parcels).
..	..	..	..	..	..	..	..	..	..	Through.
..	575	37,039	966	301	625	4,076,400	5,235 12	5,985 4	7,149 14	Palmerston N. (Goods).
..	..	340	28	..	15	830,400	1,882 5	5,469 3	2,291 10	Through.
..	5	3,218	33	..	18	684,900	505 12	514 8	962 14	Ashhurst.
..	..	..	..	..	..	101,000	55 13	275 10	231 19	Through.
..	..	38,140	..	16	6	43,800	233 9	368 10	1,927 17	Longburn.
1	47	73,104	124	3,538	24	205,800	1,719 7	1,420 15	928 16	Through.
..	..	4,719	16	5,091	191½	1,220,700	1,220 10	2,280 14	3,444 18	Foxton.
..	..	113	..	..	1	82,000	502 9	198 4	41 8	Through.
..	..	4,358	14	..	2	69,700	210 0	325 10	287 13	Shannon.
..	..	2,853	88	4	19½	178,600	378 3	822 3	226 15	Levin.
..	1	2,178	7	..	12	166,800	332 15	658 3	292 7	Otaki.
..	..	1,260	..	..	17½	123,600	248 8	354 0	435 6	Paekakariki.
..	71	143,716	583	..	21	105,900	261 11	163 19	636 4	Johnsonville.
..	..	..	..	..	..	..	..	..	..	Thorndon (Coaching).
..	2	5,301	27	9,297	109	1,233,700	2,895 16	1,473 1	68 11	(Goods).
..	..	..	..	..	..	..	..	..	..	Lambton (Passengers)
..	..	..	..	..	..	..	..	..	..	(Parcels).
..	..	7,815	..	53,510	639½	7,941,300	12,085 19	37,458 6	47,381 9	(Goods).
..	..	1,230	..	6,295	..	20,100	7,087 11	4,173 5	451 8	Wharf.
..	..	..	..	..	..	..	..	..	..	Te Aro.
..	372	284,729	13,770	31	1	29,300	3 15	785 13	5,820 2	Ngahauranga.
..	..	83	9,933	..	1	..	..	7 15	..	Through.
..	187	644,421	1,380	8	84	2,383,100	1,174 15	483 7	17,336 7	Petone.
..	56	100,479	301	..	9	..	..	26 8	..	Through.
..	4	266	..	..	136	1,813,600	812 3	342 8	4,243 1	Lower Hutt.
..	..	19	..	..	3	22,600	0 8	10 3	2 0	Through.
..	68	1,790	..	..	14	230,000	1,266 4	1,041 16	3,088 8	Upper Hutt.
..	..	..	..	..	..	2,000	0 4	1 6	..	Through.
..	..	187	..	..	..	10,800	95 9	120 2	73 13	Kaitoke.
..	..	..	..	..	..	..	4 0	1 15	..	Through.
..	..	..	..	..	..	..	..	..	..	Summit.
..	..	..	..	..	..	..	..	..	..	Cross Creek.
..	111	14,802	386	..	92	686,900	2,105 13	2,587 19	2,212 12	Featherston.
..	..	..	..	..	..	..	..	0 10	..	Through.
..	..	1,816	43	..	..	64,100	512 10	735 9	259 16	Greytown.
..	..	..	..	..	..	..	..	0 4	..	Through.
..	1	7,764	1,067	33	14	645,500	1,772 11	1,637 9	1,335 7	Carterton.
..	..	23	..	..	..	..	..	2 14	..	Through.
..	4	28,062	157	250	91	1,765,700	4,853 12	5,818 1	5,813 3	Masterton.
..	..	920	..	..	..	..	0 10	3 11	..	Through.
..	..	546	361	..	247½	45,800	451 17	278 14	583 7	Mauriceville.
..	..	..	..	..	..	..	..	2 10	..	Through.
..	50	3,938	282	2	6	119,200	1,709 2	1,659 10	1,412 4	Eketahuna.
..	1	..	1	..	..	..	..	4 6	..	Through.
..	188	4,740	310	204	2	598,200	2,364 0	2,369 0	1,142 17	Pahiatua.

RETURN No.

EXPENDITURE of each St

Generals.	Ordinary Passengers.	Season Tickets.	Number of official feet.	Grain.	Merchandise.	Minerals.	Stations.
c.	£ s. d.	£ s.		T. c.	T. c.	T. c.	
77 3	11,065 16 2	1,859 9	005,500	69,147 2	51,687 19	12,969 6	SOUTH ISLAND MAIN
67 8	..	..	74,200	31,308 4	6,609 7	4 10	LYTTELTON (Coaching)
16 4	652 7 9	397 17	28,600	2,154 8	113 7	1,933 6	.. (Goods).
93 16	397 13 2	213 19	006,000	853 8	6,854 14	6,937 17	.. (Wharf).
				1 16	0 17	..	Heathcote.
							Woolston.
							Opawa.

LAKELAND							STATIONS
T. c.							
..	..	..	..	..	..	..	STATIONS : Totals
..	..	..	..	..	..	..	Totals
..	..	..	..	..	..	..	General ..
..	..	..	..	..	..	..	Head Office ..
..	..	..	..	..	..	..	Blenheim ..
..	..	..	..	..	..	..	Pictou ..
..	..	..	..	..	..	..	Pictou Section—
..	..	..	..	..	..	..	Totals
..	..	..	..	..	..	..	General ..
..	..	..	..	..	..	..	Head Office ..
..	..	..	..	..	..	..	Kohatu ..
..	..	..	..	..	..	..	Belgrave ..
..	..	..	..	..	..	..	Wakefield ..
..	..	..	..	..	..	..	Richmond ..
..	..	..	..	..	..	..	Nelson ..
..	..	..	..	..	..	..	Port ..
..	..	..	..	..	..	..	Nelson Section—
..	..	..	..	..	..	..	Totals
..	..	..	..	..	..	..	General ..
..	..	..	..	..	..	..	Tablet stations ..
..	..	..	..	..	..	..	Head Office ..
..	..	..	..	..	..	..	Trinity ..
..	..	..	..	..	..	..	Waimangaroa Junc. ..
..	..	..	..	..	..	..	Westport ..
..	..	..	..	..	..	..	Westport Section—
..	..	..	..	..	..	..	Totals
..	..	..	..	..	..	..	General ..
..	..	..	..	..	..	..	(S.I. M.L. & B.)
..	..	..	..	..	..	..	Thorough traffic ..
..	..	..	..	..	..	..	Accountant ..
..	..	..	..	..	..	..	Other ..
..	..	..	..	..	..	..	Moana ..
..	..	..	..	..	..	..	Reefton ..
..	..	..	..	..	..	..	Totara Flat ..
..	..	..	..	..	..	..	Ahaura ..
..	..	..	..	..	..	..	Ngahere ..

Carried forward

RETURN No. 12—continued.

STATEMENT of REVENUE and EXPENDITURE of each Station for the Year ended 31st March, 1909—continued.

STATEMENT of REVENUE and EXPENDITURE of each Station for the Year ended 31st March, 1909—continued.

H. DAVIDSON, Chief Accountant.

INWARD.										Stations.		
Oxalves.	Sheep.	Pigs.	Bales of Wool.	Trucks of Fire-wood.	Timber, Superficial Feet.	Grain.	Merchandise.	Minerals.				
										SOUTH ISLAND MAIN LINES AND BRANCHES		
										—continued.		
2	17	1,548	3	..	6	66,700	Ts. c. 339 18	Ts. c. 131 2	Ts. c. 1,862 18	Allanton.		
6	15	7,311	35	..	5	76,300	578 17	347 7	3,010 3	Henley.		
	1	782	..	..	63	28,800	251 16	122 14	422 15	Waihola.
	..	392	..	..	102	38,400	352 10	208 19	9,659 19	Milburn.
	..	..	..	..	..	..	..	..	..	Milton (Coaching).
1	1	5,133	36	759	51	465,600	2,154 10	1,442 9	4,283 4	„ (Goods).		
	..	2,813	..	..	17	103,100	705 11	532 1	1,324 11	Waitahuna.
	..	..	..	..	..	..	..	..	..	Lawrence (Coach'g)
	1	3,552	..	..	32	449,400	1,422 7	2,627 0	4,465 19	„ (Goods).
3	20	1,827	..	..	17	134,900	502 16	224 14	1,310 10	Lovell's Flat.
	..	2,464	383	..	175	464,800	1,100 13	1,212 1	997 15	Stirling.		
	..	..	..	..	..	..	..	..	..	Balclutha (Coach'g).
2	43	15,113	151	..	200	974,800	3,696 7	2,925 2	6,059 10	„ (Goods).		
1	2	8,769	10	1	36	91,600	1,600 13	531 16	2,442 11	Waiwera.		
	3	5,351	..	..	22	212,200	847 11	484 7	1,830 18	Clinton.
	..	185	1	..	16	101,700	738 6	226 8	749 4	Waipahi.		
	1	771	5	..	7	194,500	848 16	592 8	1,455 0	Papanui.		
	..	1,139	..	..	14	213,600	738 10	362 9	1,928 5	Kelso.
	..	4,584	7	5	87	353,700	878 6	785 10	3,017 3	Heriot.		
	..	825	..	..	23	542,900	1,608 18	513 14	1,324 0	Pukerau.
	..	..	..	..	..	..	..	..	..	Gore (Coaching).
1	1	4,722	42	3,104	164	1,249,800	9,045 17	3,562 7	2,921 7	„ (Goods).		
1	12	1,528	95	..	79	589,200	3,052 19	2,364 8	6,309 15	Riversdale.		
	..	1,366	..	..	47	186,300	1,337 8	471 14	1,979 19	Balfour.
	54	23,990	..	..	36	795,500	3,464 16	3,779 2	3,171 9	Mataura.
	..	6,579	610	..	57	345,000	1,880 4	708 2	4,445 13	Edendale.		
	15	2,920	2	..	47	613,800	1,770 14	962 3	2,906 16	Wyndham.		
2	33	5,941	7	417	31	13,400	2,039 3	782 3	6,276 4	Woodlands.		
	..	..	..	..	..	..	..	..	..	Invercargill (Pass.).
	..	..	..	..	..	..	..	..	..	„ (Parcels).
2	43	46,963	105	16,720	524	4,315,600	20,213 1	18,861 11	41,152 7	„ (Goods).		
	..	..	..	..	..	..	..	..	..	„ (D.T. Mgr.).
	18	1,429	16	..	78	385,600	2,112 12	753 6	5,985 7	Waimahaka.		
	..	..	..	..	..	..	..	..	..	Bluff (Coaching).
	4	111,814	..	83,587	79	1,577,900	43,532 4	17,958 14	7,532 4	„ (Goods).		
	..	..	..	30,196	..	10,100	22,546 18	5,684 7	1,097 12	„ (Wharf).
3	2	17,273	53	4	70	200,100	1,595 3	1,400 2	3,462 4	Makarewa.		
	..	1,030	..	..	11	203,800	1,590 3	482 4	863 13	Thornbury.
	..	214	10	..	52	347,400	797 11	560 17	1,802 6	Riverton.		
	32	7,124	21	..	53	68,300	1,162 17	1,551 4	2,579 0	Orepuki.		
	1	1,699	..	..	5	50,700	661 9	240 11	1,802 16	Fairfax.
9	..	2,392	..	..	6	161,100	1,809 18	1,282 16	2,581 4	Otautau.
	..	338	..	..	77 ² / ₃	326,200	1,422 4	729 11	2,009 1	Nightcaps.
1	1	3,139	205	..	10	279,500	3,093 16	1,805 7	4,546 3	Winton.		
2	2	4,167	..	..	4	24,400	1,380 4	443 15	1,954 14	Centre Bush.
	..	1,893	..	..	11	94,900	718 6	402 13	1,085 8	Dipton.
	16	3,778	..	..	45	255,600	1,244 0	807 15	1,653 10	Lumsden.
	1	2,243	15	..	9	103,600	609 4	540 0	862 12	Kingston.		
	..	2,232	499	1,789	1	156,500	1,686 18	1,275 19	882 19	Through traffic(Lake Wakatipu).		
	..	..	..	..	..	..	..	..	..	Through traffic (Westland).
	..	..	..	..	..	..	..	..	..	Accountant.
	..	..	..	..	..	..	..	..	..	Tablet stations.
	..	..	..	..	..	..	..	..	..	General.
26,928	2,318,738	33,512	494,969	5,323 ¹ / ₃	82,591,200	545,083	7	403,673	14	650,512	5	Total.
WESTLAND SECTION—												
	3	1,994	6	81	44	356,500	364 19	8,418 15	6,378 7	Hokitika.		
1	1	217	..	..	1	186,800	1,630 4	1,485 7	2,520 3	Kumara.
	..	..	..	..	..	..	..	..	..	Greymouth(Coach'g)
2	34	7,939	51	728	107 ² / ₃	43,944,500	376 7	1,631 6	350,511 19	„ (Goods)		
	..	..	..	..	..	..	..	..	..	„ (D.T. Mgr.).
	..	..	..	..	1	526,900	506 14	1,167 3	8,585 3	Runanga.
	..	35	..	..	75	116,500	545 11	451 11	112 4	Brunner.

RETURN No. 13.

STATEMENT of CARRIAGE and WAGON STOCK, and TARPULINS, for the Year ending 31st March, 1909.

Description.	Class.	Kawakawa.	Whangarei.	Kaihu.	North Island Main Line and Branches.	Gisborne.	South Island Main Line and Branches.	Westland.	Westport.	Nelson.	Pictou.	Total.
CARRIAGES.												
Sleepers, bogie, 50 feet	AA	...	...	...	6	...	...	...	...	...	...	6
First-class day-cars, bogie, 50 feet	AA	...	...	...	8	...	...	...	...	...	...	8
Second-class cars, bogie, 50 feet	AA	...	...	...	16	...	...	...	...	...	...	16
Refreshment-cars, " 50 feet	AA	...	...	...	4	...	...	...	...	...	...	4
Royal saloon, bogie, 44 feet	A	...	...	...	2	...	1	...	...	...	...	3
Gallery-cars, " 44 feet	A	...	...	...	...	...	5	...	...	...	...	5
Saloon, bogie, 44 feet	A	...	...	...	...	...	1	...	...	...	...	1
" " 41 feet	A	...	...	...	5	...	4	...	...	...	...	9
" " 39½ feet	A	...	...	...	7	...	7	...	...	...	...	14
" " 37½ feet	A	...	...	...	2	...	...	...	...	...	...	2
" " 35 feet	A	...	...	...	1	...	...	2	...	...	...	3
Refreshment-cars, bogie, 54½ feet	A	...	...	...	1	...	...	...	...	...	...	1
" " 47½ feet	A	...	...	...	...	...	6	...	...	...	...	6
" " 45 feet	A	...	...	...	1	...	...	...	...	...	...	1
" " 44 feet	A	...	...	...	6	...	1	...	...	...	...	7
" " 31 feet	B	...	...	...	1	...	...	...	...	...	...	1
Motor-train cars, bogie, 60 feet	A	...	...	...	3	...	1	...	...	...	...	4
First-class, bogie, 52 feet	A	...	...	...	5	...	...	...	...	...	...	5
" " 47½ feet	A	...	...	...	35	...	24	...	...	...	...	59
" " 45½ feet	A	...	...	...	2	...	...	...	...	...	...	2
" " 45 feet	A	...	...	...	9	...	...	...	...	...	...	9
" " 44 feet	A	...	...	...	2	...	6	...	...	...	...	8
" " 42½ feet	A	...	...	...	...	...	8	...	...	...	...	8
" " 30 feet	B	...	...	...	1	...	6	...	...	...	...	7
" 6-wheel	C	...	...	...	...	...	4	...	...	...	...	4
" 4-wheel	D	...	2	...	...	...	2	...	...	...	...	4
Composite, bogie, 60 feet	A	...	...	...	3	...	...	...	...	...	...	3
" " 47½ feet	A	...	...	...	98	...	73	5	1	1	2	180
" " 46 feet	A	...	...	...	...	...	8	...	...	...	...	8
" " 45 feet	A	...	...	...	8	...	...	...	...	...	...	8
" " 44 feet	A	...	...	...	89	...	80	9	2	2	3	185
" " 42½ feet	A	...	...	...	13	...	30	...	...	...	...	43
" " 39½ feet	A	...	...	...	4	...	4	2	1	1	1	13
" " 30 feet	B	...	...	...	20	...	21	...	...	...	...	41
" 6-wheel	C	...	4	2	...	3	6	2	...	2	...	19
" 4-wheel	D	2	...	...	...	...	...	...	...	...	...	2
Second-class, bogie, 52 feet	A	...	...	...	13	...	...	...	...	...	...	13
" " 50 feet	A	...	...	...	1	...	...	...	...	...	...	1
" " 47½ feet	A	...	...	...	48	...	51	...	1	...	...	100
" " 46 feet	A	...	...	...	...	...	4	...	...	...	...	4
" " 45½ feet	A	...	...	...	6	...	...	...	...	...	...	6
" " 45 feet	A	...	...	...	10	...	...	...	...	...	...	10
" " 44 feet	A	...	...	...	74	...	101	7	3	2	2	189
" " 42½ feet	A	...	...	...	1	...	6	...	...	...	...	7
" " 39½ feet	A	...	...	...	4	...	...	1	...	1	...	6
" " 35 feet	A	...	...	...	3	...	...	...	...	...	...	3
" " 30 feet	B	...	...	...	2	...	10	...	...	...	1	13
" 6-wheel	C	...	3	2	...	5	12	2	...	2	...	26
" 4-wheel	D	1	3	...	...	...	6	...	...	...	2	12
Postal, bogie, 50 feet	A	...	...	...	8	...	2	...	...	...	...	10
" " 44 feet	A	...	...	...	...	...	4	...	...	...	...	4
" " 39½ feet	A	...	...	...	6	...	...	...	...	...	...	6
" " 30 feet	B	...	...	...	...	...	3	...	...	...	...	3
" " composite, 44 feet	A	...	...	...	4	...	...	...	...	...	...	4
Totals	...	3	12	4	532	8	497	30	8	11	11	1,116
WAGONS, ETC.												
Brake-vans, 4-wheel	F	2	4	2	24	2	54	7	2	4	3	104
" bogie	F	...	...	...	139	...	93	8	4	...	1	245
" Fell	F	...	...	...	7	...	...	...	...	...	...	7
Horse-boxes	G	...	...	...	108	...	71	4	...	1	2	186
Cattle	H	2	2	...	171	2	171	6	2	3	2	361
Sheep	J	...	...	...	546	10	356	3	...	2	24	941
Covered goods	K	1	5	1	212	...	319	15	3	6	3	565
Sleeping-vans	K	...	...	...	27	...	46	3	1	1	...	78
High-sides	L	5	12	4	2,833	21	3,977	168	12	63	114	7,209
" "	LA	...	...	...	250	...	1,326	...	...	...	...	1,576
Wharf	LB	...	...	...	...	...	...	45	...	...	...	45
Low-sides	M	4	18	12	372	15	815	50	24	14	21	1,345
" steel	MA	...	...	...	100	...	...	...	...	...	...	100
Work-train	MB	...	...	...	70	...	75	...	...	...	...	145
Timber	N	10	72	40	201	...	165	36	32	8	...	564
Iron hopper	O	...	...	...	50	...	...	...	110	...	...	160
Platform coal	P	9	95	...	...	...	...	...	...	...	...	104
Carried forward	...	33	208	59	5,110	50	7,468	345	190	102	170	13,735

RETURN No. 13—continued.

STATEMENT of CARRIAGE and WAGON STOCK, &c.—continued

Description.	Class	Kawakawa.	Whangarei.	Kaiti.	North Island Main Line and Branches.	Gisborne.	South Island Main Line and Branches.	Westland.	Westport.	Nelson.	Picton.	Total.
WAGONS, ETC.—continued.												
Brought forward ..	...	33	208	59	5,110	50	7,468	345	190	102	170	13,735
Movable hopper ...	Q	...	...	...	...	...	...	314	463	...	...	777
Frozen meat ...	W	...	...	...	75	...	65	...	...	10	...	150
Cool, insulated ...	X	...	2	...	155	...	11	...	...	...	...	168
„ ventilated ...	XA	...	...	...	81	...	63	...	...	...	7	151
Work-train hopper ...	Y	...	...	...	86	...	50	20	...	...	...	156
„ „ „	YB	...	...	...	45	...	25	...	...	...	...	70
High-side, bogie ...	R	...	2	...	192	...	51	9	...	...	...	254
„ „ „	Rb	...	...	...	40	...	21	...	...	...	...	61
„ „ „	Rd	...	...	...	16	...	...	...	...	...	...	16
Sheep, „ „	S	...	...	...	73	...	52	...	...	...	...	125
Cattle, „ „	T	...	...	...	49	...	21	...	...	...	...	70
Platform, „ „	U	I	2	...	192	2	51	42	...	2	2	294
Gas storeholders, bogie	UA	...	...	...	6	...	6	...	...	...	...	12
Platform, „ „	UB	...	...	...	137	...	30	34	...	...	...	201
„ „ „	UD	...	...	...	48	...	...	...	...	...	...	48
Horse-boxes, „ „	UG	...	...	...	11	...	12	...	...	...	...	23
Frozen meat, „ „	V	...	...	...	46	...	55	...	...	...	...	101
Covered goods, „ „	Z	...	...	...	43	...	21	...	...	...	...	64
Totals ...	...	34	212	61	6,405	52	8,002	764	653	114	179	16,476
TARPAULINS ...	...	13	37	24	4,780	55	6,905	245	42	106	190	12,397

RETURN No. 14.

STATEMENT of LOCOMOTIVE STOCK for the Year ending 31st March, 1909.

Class.	Type.	Cylinders.		Coupled Wheels.		Truck Wheels.		Kawakawa.	Whangarei.	Kaiti.	North Island Main Line and Branches.	Gisborne.	South Island Main Line and Branches.	Westland.	Westport.	Nelson.	Picton.	Total.
		Dia-meter.	Stroke.	No.	Dia-meter.	No.	Dia-meter.											
A	Tender (4cyl.balanced compound)	12 & 19	22	6	Fr. in. 6	6	30½	...	...	...	12	...	7	...	...	...	...	19
A	Tender, simple	17	26	6	4 6	6	30½	...	...	...	...	...	1	...	...	...	...	1
B	„ „	16	22	8	3 6½	4	30½	...	...	...	...	...	8	...	...	...	...	8
Bc	„ compound	11½ & 19	20	8	3 7	{ 2 28 } { 2 30 }	...	...	...	...	1	...	...	...	...	...	...	1
C	Tank	9½	18	4	2 6½	2	18	1	1	...	2	...	...	2	...	...	...	6
D	„ „	9½	18	4	3 0½	2	18	1	...	...	8	2	15	1	...	1	1	29
E	„ (articulated compound)	9½ & 16	18	12	3 0½	2	26½	...	...	...	1	...	...	...	...	...	...	1
F	„ „	10½	18	6	3 0½	...	...	...	...	2	24	...	37	5	3	1	...	72
FA	„ „	12	18	6	3 0½	2	24	...	2	...	6	...	6	1	2	2	1	20
G	„ „	10½	18	4	3 0½	4	21	...	...	...	...	...	...	...	...	...	4	4
H	„ „Fell”	14	16	4	2 8	2	30	...	...	...	6	...	...	...	...	...	...	6
J	Tender	14	20	6	3 6½	2	24½	...	...	...	17	...	15	...	...	...	...	32
K	„ „	12	20	4	4 1½	4	30½	...	...	...	2	...	6	...	...	...	...	8
L	Tank	12	18	4	3 6½	6	26½	...	...	...	9	...	1	...	...	...	...	10
LA	„ „	12	18	4	3 9	4	26½	...	...	...	...	...	5	...	...	...	...	5
M	„ „	13	20	4	3 6½	6	28½	...	...	...	4	...	...	...	...	...	...	4
N	Tender	15	20	6	4 1½	4	28½	...	...	...	10	...	...	...	...	...	...	10
N	„ „	15	20	6	4 1	4	30	...	...	...	2	...	...	...	...	...	...	2
NA	„ compound	10 & 17	20	6	4 1	4	30	...	...	...	2	...	...	...	...	...	...	2
Nc	„ „	10 & 17	20	6	4 1	4	30	...	...	...	2	...	...	...	...	...	...	2
O	„ „	15	18	8	3 0½	2	28½	...	...	...	6	...	...	...	...	...	...	6
OA	„ compound	11 & 18	20	8	3 7	2	30	...	...	...	1	...	...	...	...	...	...	1
OB	„ „	16	20	8	3 7	2	30	...	...	...	2	...	...	...	...	...	...	2
OC	„ compound	11 & 18	20	8	3 7	2	30	...	...	...	1	...	...	...	...	...	...	1
P	„ „	15	20	8	3 5	2	26½	...	...	...	4	...	6	...	...	...	...	10
Q	„ „	16	22	6	4 1½	{ 2 30 } { 4 26½ }	...	...	...	...	6	...	7	...	...	...	...	13
R	Single Fairlie	12½	16	6	3 0½	4	30½	...	...	...	10	...	8	...	...	...	...	18
S	„ „	13	16	6	3 0½	4	30½	...	...	...	4	...	...	...	...	...	...	4
T	Tender	15	18	8	3 0½	2	24½	...	...	...	2	...	4	...	...	...	...	6
U	„ „	16	20	6	4 6	4	30½	...	...	...	...	...	9	...	...	...	...	9
UA	„ „	16	20	6	4 1½	4	30	...	...	...	...	...	6	...	...	...	...	6
UB	„ „	16	20	6	4 1½	4	26½	...	...	...	...	...	20	...	...	...	...	20
UB	„ „	16	22	6	4 1½	4	30	...	...	...	...	...	2	...	...	...	...	2
UC	„ „	16	22	6	4 1½	4	30	...	...	...	...	...	10	...	...	...	...	10
UD	„ „	16½	22	6	4 10	4	28	...	...	...	2	...	...	...	...	...	...	2
V	„ „	15	20	6	4 1½	4	26½	...	...	...	3	...	10	...	...	...	...	13
W	Tank	14	20	6	3 0½	4	26½	...	...	...	...	...	2	...	...	...	...	2
WA	„ „	14	20	6	3 3½	4	28½	...	...	...	9	...	2	...	...	...	...	11
WB	„ „	14	20	6	3 3½	4	25	...	2	...	7	...	...	...	3	...	...	12
WD	„ „	14	20	6	3 3½	6	25	...	...	...	14	...	4	...	...	...	...	18
WE	„ „	16	22	6	3 6½	8	30½	...	...	...	2	...	...	...	...	...	...	2
WF	„ „	14	22	6	3 9	6	30½	...	...	...	22	...	14	...	...	...	...	36
WH	„ „	12	18	6	3 1	4	24½	...	...	...	3	...	...	...	...	...	...	3
WJ	„ „	17	20	8	3 7	{ 2 30 } { 4 26 }	...	...	...	...	1	...	...	...	...	...	...	1
X	Tender (4cyl.balanced compound)	13½ & 22	22	8	3 9	{ 2 30½ } { 4 26½ }	...	...	...	...	2	...	...	...	...	...	...	2
Totals ...	...	...	...	...	...	...	...	2	5	2	209	2	196	16	10	4	6	452

RETURN No. 15.

COMPARATIVE STATEMENT of the MILEAGE OPENED, CAPITAL EXPENDED, EARNINGS, EXPENSES, &c., of RAILWAYS in the following Colonies (taken from latest Official Records):—

Colony.	Area in Square Miles.	Population.	Average Miles open.	Gauge.	Total Cost.	Cost per Mile.		Cost per Head of Population.	Train Miles run.	Gross Earnings.	Earnings per Train Mile.	Working-expenditures.		Profit on Working.	Net Earnings per Train Mile.	Percentage of Net Earnings to Capital.	Percentage of Working-expenditures to Earnings.	Head of Population.	Passengers carried.	Tonnage of Goods.	Earnings per Average Mile open.	Working-expenditures per Average Mile open.	Net Earnings per Average Mile.	Maintenance per Mile of Railway.	Expenses.				Number of Locomotives.	Number of Passenger-carriages.	Number of Wagons and Brake-vans.	Year ending
						£	£ s. d.					£	£ s. d.												£	£ s. d.	£	£ s. d.				
Victoria ..	87,884	1,258,140	3,396	5 3	41,928,567	12,346,370	33 6	610,383	3,873,368	89.53	2,285,897	52.84	1,587,471	36.69	3.79	59.02	3 1	774,907,425	3,754,861	1,141	673	468	191	22.11	15.82	1.75	488	1,246	11,282	1908. 30 June.		
New South Wales	310,700	1,571,267	3,469	4 8½	45,683,484	13,156,452	29 1	614,251	4,944,134	83.26	2,714,839	45.72	2,229,295	37.54	4.88	54.91	3 2	11,47,487,030	10,175,389	1,425	782	643	179	21.05	15.00	2.06	696	836	13,986	1907.		
Cape of Good Hope	221,311	610,680	3,227	3 6	31,542,561	9,809,190	51 13 0	8,347,000	3,469,705	99.80	2,572,634	74.00	897,071	25.80	2.85	74.10	5 13	818,067,524	1,539,263	1,078	799	279	144	32.60	19.50	2.20	655	974	10,346	31 Dec. 1908.		
Queensland ..	668,224	546,467	3,359	3 6	22,575,603	6,721,163	41 6 3	6,557,723	1,950,881	71.50	1,053,736	38.50	897,145	33.00	3.98	54.01	3 11	510,419,794	2,423,529	602	825	277	100	15.25	14.89	1.20	368	474	8,213	30 June.		
South Australia ..	903,690	400,000	2,006	3 6 { 5 3 }	15,089,809	7,522,199	37 14 6	5,041,128	1,755,721	83.59	983,590	46.83	772,131	36.76	5.12	56.02	4 7	912,842,310	2,259,509	875	490	385	145	18.83	11.30	1.09	337	450	6,363	"		
Natal ..	20,461	97,109	976	3 6	13,989,202	14,333,100	144 1 2	4,844,858	1,832,862	90.79	1,240,319	61.44	592,543	29.35	4.23	67.67	18 17 6	2,680,426	2,676,748	1,877	1,270	607	195	32.36	18.26	3.39	336	397	3,619	31 Dec.		
Western Australia	975,876	265,475	1,830	3 6	10,732,941	5,865,137	40 0 0	3,964,230	1,501,925	90.93	1,007,732	61.01	494,193	29.92	4.60	67.10	5 13	212,945,561	2,272,949	821	551	270	124	29.34	17.97	1.78	317	342	6,514	30 June.		
Tasmania ..	26,215	184,008	463	3 6 { 5 6 }	3,977,611	8,590,397	21 12 3	1,028,030	277,606	64.80	201,817	47.11	75,789	17.69	1.90	72.69	1 10 2	1,019,668	465,186	590	429	161	139	18.83	17.90	3.38	78	182	1,631	1899.		
New Zealand ..	104,471	746,673	2,090	3 6	16,404,076	7,849,357	21 19 5	3,968,708	1,469,665	89.00	929,737	56.22	589,928	32.78	3.29	63.26	1 19 4	4,955,553	2,624,059	712	450	262	173	18.46	16.67	3.00	293	550	9,792	31 Mar. 1900.		
" ..	104,471	758,616	2,099	3 6	16,703,887	7,958,361	22 0 5	4,187,893	1,623,891	93.00	1,052,358	60.31	571,533	32.69	3.42	64.80	2 2 10	5,468,284	3,127,824	774	501	273	188	21.32	16.17	2.93	304	577	10,295	31 Mar. 1901.		
" ..	104,471	815,349	2,174	3 6	17,207,328	7,915,375	21 2 1	4,620,971	1,727,236	89.75	1,127,848	58.58	599,388	31.17	3.47	65.30	2 2 4	6,243,593	3,339,687	794	519	275	196	19.99	17.15	2.09	306	603	10,868	31 Mar. 1902.		
" ..	104,471	833,137	2,227	3 6	18,170,722	8,159,374	21 16 2	5,066,360	1,874,586	88.75	1,252,237	59.32	622,349	29.43	3.43	66.80	2 5 0	7,356,136	3,529,177	842	562	280	196	21.35	17.78	3.03	362	701	12,444	31 Mar. 1903.		
" ..	104,471	857,985	2,262	3 6	19,081,735	8,436,379	22 4 10	5,443,333	1,974,038	87.00	1,343,415	59.23	630,623	27.77	3.30	68.05	2 6 0	7,575,390	3,730,394	873	594	279	204	21.36	18.24	3.19	372	751	12,992	31 Mar. 1904.		
" ..	104,471	882,037	2,305	3 6	20,692,911	8,977,383	23 9 2	5,685,399	2,180,641	91.75	1,438,724	60.48	741,917	31.27	3.58	65.98	2 9 5	8,306,383	4,072,576	943	622	321	213	22.21	17.22	3.14	377	809	13,433	31 Mar. 1905.		
" ..	104,471	908,114	2,347	3 6	21,701,572	9,141,387	23 17 11	6,107,079	2,209,231	86.50	1,492,900	58.46	716,331	28.04	3.30	67.58	2 8 8	8,514,112	4,011,511	938	634	304	217	21.05	18.28	3.10	389	864	13,885	31 Mar. 1906.		
" ..	104,471	933,111	2,391	3 6	22,498,972	9,410,391	24 2 3	6,413,573	2,349,704	87.75	1,621,239	60.47	728,465	27.28	3.24	69.00	2 10 4	8,826,382	4,241,42	980	676	304	229	21.99	18.86	3.01	395	906	14,127	31 Mar. 1907.		
" ..	104,471	961,604	2,427	3 6	23,504,272	9,570,396	24 8 10	6,755,454	2,624,600	93.00	1,812,482	64.21	812,118	28.79	3.45	69.06	2 14 7	9,600,786	4,592,099	1,078	744	334	253	23.37	18.90	2.80	398	966	14,605	31 Mar. 1908.		
" ..	104,471	985,318	2,469	3 6	24,366,539	9,861,399	24 14 7	7,051,274	2,761,938	93.75	1,949,759	66.18	812,179	27.57	3.33	70.59	2 16 1	9,756,716	4,834,534	1,114	786	328	258	24.96	19.40	2.76	410	1,002	15,475	31 Mar. 1909.		
" ..	104,471	1,016,044	2,556	3 6	27,762,592	10,351,398	27 6 6	7,458,236	2,929,526	94.00	2,114,815	67.89	814,711	26.11	3.13	72.19	2 17 8	10,457,144	4,871,874	1,148	828	320	258	25.56	20.73	3.16	452	1,116	16,476	31 Mar.		

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Railways from 1883 to 31st March, 1909.

Year.	Timber.	Grain.	Merchandise.	Minerals.	Total.	Goods Revenue.	Miscellaneous Revenue.	Rents and Commission.	Total Revenue.	Revenue per Train-mile.
	Tons.	Tons.	Tons.	Tons.	Tons.	£	£	£	£	d.
1882-83 ..	197,231	367,428	350,823	510,088	1,564,823	518,330	29,496	8,757	953,347	82·00
1883-84 ..	183,449	432,223	350,263	574,313	1,700,040	548,918	31,644	9,221	961,304	81·00
1884-85 ..	178,909	414,590	365,623	618,511	1,749,856	611,504	23,160	10,422	1,045,712	87·00
1885-86 ..	202,571	413,847	368,225	669,081	1,823,767	622,810	16,732	11,229	1,047,419	83·00
1886-87 ..	175,581	345,254	329,227	719,579	1,747,754	581,350	14,893	12,523	998,768	79·50
1887-88 ..	158,024	358,022	347,379	700,140	1,735,762	579,359	14,611	13,420	994,843	81·00
1888-89 ..	160,399	447,027	356,732	786,690	1,920,431	610,488	15,663	13,915	997,615	85·50
1889-90 ..	172,814	498,198	399,258	797,117	2,073,955	655,007	18,091	16,027	1,095,570	91·50
1890-91 ..	153,078	528,683	385,020	828,079	2,086,011	690,779	20,718	17,615	1,121,701	93·00
1891-92 ..	170,520	442,277	379,768	873,899	2,066,791	671,469	19,388	18,163	1,115,432	88·75
1892-93 ..	168,910	523,637	397,411	884,031	2,193,330	707,786	18,830	19,486	1,181,522	94·50
1893-94 ..	183,192	411,191	377,116	864,538	2,060,645	686,469	18,563	20,535	1,172,793	90·25
1894-95 ..	198,578	388,556	377,938	857,917	2,048,391	683,726	17,265	21,441	1,150,851	85·75
1895-96 ..	213,132	374,699	389,881	878,659	2,087,798	698,115	18,466	22,490	1,183,041	85·75
1896-97 ..	257,825	423,888	415,448	1,032,252	2,368,927	774,163	20,225	23,526	1,286,158	90·50
1897-98 ..	313,073	427,448	465,041	1,048,868	2,518,367	837,590	19,631	24,485	1,376,008	90·00
1898-99 ..	310,266	420,071	478,851	1,147,353	2,624,059	882,077	20,328	25,289	1,469,665	89·00
1899-1900..	334,677	764,033	536,428	1,218,698	3,127,874	985,723	25,135	29,524	1,623,891	93·00
1900-1901..	380,803	772,571	551,879	1,366,241	3,339,687	1,051,695	28,601	29,253	1,727,236	89·75
1901-1902..	427,153	813,345	556,395	1,443,792	3,529,177	1,110,575	30,303	33,129	1,874,586	88·75
1902-1903..	436,008	718,376	633,685	1,604,426	3,730,394	1,189,101	29,960	42,006	1,974,038	87·00
1903-1904..	509,712	820,453	658,144	1,744,323	4,072,576	1,293,169	33,074	39,587	2,180,641	91·75
1904-1905..	493,327	732,479	630,832	1,806,360	4,011,511	1,277,976	40,067	37,980	2,209,231	86·50
1905-1906..	534,533	772,258	623,603	1,938,548	4,241,422	1,346,038	38,518	35,633	2,349,704	87·75
1906-1907..	567,835	770,706	712,399	2,135,446	4,592,099	1,498,686	44,692	37,256	2,624,600	93·00
1907-1908..	616,892	739,568	757,647	2,319,913	4,834,534	1,582,328	50,143	39,613	2,761,938	93·75
1908-1909..	582,860	793,793	729,971	2,342,048	4,871,874	1,630,704	57,147	42,976	2,929,526	94·00

Departmental Offices.		General Charges and Sundries.			Less Credit Recoveries.			Total Expenditure.
Per Cent. of Revenue.	Per Train-mile.	Amount.	Per Cent. of Revenue.	Per Train-mile.	Amount.	Per Cent. of Revenue.	Per Train-mile.	
£	d.	£	£	d.	£	£	d.	£
..	..	34,170	3·58	2·94	..	..	..	592,821
..	..	41,345	4·30	3·49	..	..	..	655,990
..	..	41,055	3·93	3·42	..	..	..	690,026
..	..	44,259	4·22	3·51	..	..	..	690,340
..	..	43,203	4·33	3·45	..	..	..	699,072
..	..	42,222	4·24	3·44	..	..	..	687,328
..	..	27,906	2·80	2·40	..	..	..	647,045
..	..	31,894	2·91	2·66	..	..	..	682,787
..	..	27,622	2·46	2·29	..	..	..	700,703
..	..	27,822	2·50	2·22	..	..	..	706,517
..	..	29,653	2·51	2·37	..	..	..	732,142
..	..	31,440	2·68	2·42	..	..	..	735,359
..	..	31,095	2·70	2·32	..	..	..	732,160
3·21	2·76	..	..	..	16,818	1·42	1·22	751,368
3·03	2·75	..	..	..	22,280	1·73	1·57	789,054
2·98	2·69	..	..	..	19,137	1·39	1·25	857,191
3·02	2·68	..	..	..	21,914	1·49	1·33	929,738
2·93	2·74	..	..	..	24,627	1·51	1·41	1,052,358
2·99	2·68	..	..	..	31,221	1·81	1·62	1,127,848
3·03	2·69	..	..	..	25,271	1·35	1·20	1,252,237
3·19	2·77	..	..	..	24,592	1·25	1·08	1,343,415
Lake Wakatipu Steamers.								
3·14	2·88	6,048	86·45	..	26,869	1·23	1·13	1,438,724
3·10	2·68	5,198	88·14	..	27,736	1·26	1·09	1,492,900
3·01	2·64	5,227	87·33	..	31,148	1·33	1·16	1,621,239
2·80	2·61	5,082	82·52	..	32,701	1·25	1·16	1,812,482
2·76	2·59	5,377	81·02	..	38,298	1·39	1·30	1,949,759
3·16	2·98	5,058	78·56	..	39,042	1·33	1·26	2,114,815

RETURN No. 16.

RETURN showing the MILEAGE, CAPITAL COST, TRAFFIC, REVENUE, and EXPENDITURE of the New Zealand Government Railways from 1883 to 31st March, 1909.

MILEAGE, CAPITAL COST, TRAFFIC, AND REVENUE.

Year.	Miles.	Capital Cost.	Train-mileage.	Passengers.		Season Tickets.		Coaching.					Drays.	Cattle.	Sheep.	Pigs.	Lime, Chaff.	Wool.	Firewood.	Timber.	Grain.	Merchandise.	Minerals.	Total.	Goods Revenue.	Miscellaneous Revenue.	Rents and Commission.	Total Revenue.	Revenue per Train-mile.
				No.	Revenue.	No.	Revenue.	Parcels.	Horses.	Carriages.	Dogs.	Revenue.																	
1882-83 ..	1,358	£ 10,478,998	2,785,685	3,283,378	£ 362,106	8,621	£ ..	No. 308,620	No. 9,850	No. 975	No. 22,716	£ 34,658	No. 928	No. 27,605	No. 421,671	No. 27,799	Tons. 11,810	Tons. 51,703	Tons. 75,740	Tons. 197,231	Tons. 367,428	Tons. 350,823	Tons. 510,088	Tons. 1,564,823	£ 518,330	£ 29,496	£ 8,757	£ 953,847	d. 82-00
1883-84 ..	1,396	11,078,500	2,841,745	3,272,644	321,615	9,036	14,763	325,675	9,555	906	24,666	35,143	939	29,675	627,090	29,522	16,470	62,067	81,255	183,449	432,223	350,263	574,313	1,700,040	548,918	31,644	9,221	961,304	81-00
1884-85 ..	1,477	11,810,194	2,882,422	3,232,886	348,628	8,999	16,406	313,047	10,358	793	24,020	35,592	756	32,738	666,522	30,268	17,030	68,523	86,670	178,909	414,590	365,623	618,511	1,749,856	611,504	23,160	10,422	1,045,712	87-00
1885-86 ..	1,613	12,472,814	3,020,550	3,362,266	346,895	10,717	16,482	317,242	9,518	653	22,668	33,271	660	36,634	781,470	40,558	14,985	74,778	80,280	202,571	413,847	368,225	669,081	1,823,767	622,810	16,732	11,229	1,047,419	83-00
1886-87 ..	1,727	13,017,567	3,008,949	3,426,403	339,255	11,821	16,998	341,634	9,165	689	21,598	33,749	597	37,435	856,431	48,151	22,110	82,963	73,040	175,581	345,254	329,227	719,579	1,747,754	581,350	14,893	12,523	998,768	79-50
1887-88 ..	1,758	13,352,978	2,944,786	3,451,850	334,926	11,518	17,800	368,680	9,301	619	21,128	34,727	592	32,766	857,397	50,046	22,190	84,147	65,860	158,024	358,022	347,379	700,140	1,735,762	579,359	14,611	13,420	994,843	81-00
1888-89 ..	1,777	13,472,837	2,796,007	3,132,803	305,632	11,817	17,816	370,707	8,378	650	19,971	34,101	547	29,426	842,840	47,126	24,335	78,203	67,045	160,399	447,027	356,732	786,690	1,920,431	610,488	15,663	13,915	997,615	85-50
1889-90 ..	1,809	13,899,955	2,868,203	3,376,459	347,844	12,311	21,504	375,271	9,358	708	21,209	37,097	678	31,700	985,336	51,539	37,900	91,214	77,454	172,814	498,198	399,258	797,117	2,073,955	655,007	18,091	16,027	1,095,570	91-50
1890-91 ..	1,842	14,278,586	2,894,776	3,433,629	333,122	13,881	20,471	380,319	9,790	757	22,965	38,997	582	35,209	1,258,471	54,684	29,800	87,701	73,650	153,078	528,683	385,020	828,079	2,086,011	690,779	20,718	17,615	1,121,701	93-00
1891-92 ..	1,869	14,656,691	3,010,489	3,555,764	342,563	16,341	22,054	393,407	11,370	819	25,439	41,795	653	36,248	1,067,614	49,639	26,605	85,888	87,834	170,520	442,277	379,768	873,899	2,066,791	671,469	19,388	18,163	1,115,432	88-75
1892-93 ..	1,886	14,733,120	3,002,174	3,759,044	367,594	16,504	23,025	420,610	12,993	921	26,780	44,801	796	33,597	1,321,046	38,814	34,314	96,841	88,186	168,910	523,637	397,411	884,031	2,193,330	707,786	18,830	19,486	1,181,522	94-50
1893-94 ..	1,948	15,137,036	3,113,231	3,972,701	378,480	17,226	23,540	448,770	12,350	793	25,667	45,206	831	39,223	1,356,434	38,022	38,610	101,340	84,658	183,192	411,191	377,116	864,538	2,060,645	686,469	18,563	20,535	1,172,793	90-25
1894-95 ..	1,993	15,352,613	3,221,620	3,905,578	360,243	28,623	24,906	444,981	11,185	750	23,517	43,270	705	40,890	1,519,921	43,292	36,972	103,328	85,102	198,578	388,556	377,938	857,917	2,048,391	683,726	17,265	22,441	1,150,851	85-75
1895-96 ..	2,014	15,425,532	3,307,226	4,162,426	359,822	36,233	29,412	455,511	11,115	716	22,551	54,736	693	39,651	1,839,712	53,346	53,260	99,363	78,804	213,132	374,699	389,881	878,659	2,087,798	698,115	18,466	22,490	1,188,041	85-75
1896-97 ..	2,018	15,577,392	3,409,218	4,439,387	378,684	43,069	31,476	489,825	11,347	778	22,891	58,084	841	35,909	1,964,110	52,327	60,542	98,958	80,014	257,825	423,888	415,448	1,032,252	2,368,927	774,163	20,225	23,526	1,286,158	90-50
1897-98 ..	2,055	15,993,903	3,666,483	4,672,264	399,262	48,660	34,168	530,993	9,936	862	23,069	60,872	926	44,935	2,356,595	42,784	77,226	103,055	83,656	313,073	427,448	465,041	1,048,868	2,518,367	837,590	19,631	24,485	1,376,008	89-00
1898-99 ..	2,090	16,404,076	3,968,708	4,955,553	438,367	55,027	37,186	589,372	10,348	998	24,963	66,418	1106	55,878	2,518,233	34,512	83,084	97,396	87,038	310,266	420,071	478,851	1,147,353	2,624,059	882,077	20,328	25,289	1,469,665	89-00
1899-1900 ..	2,104	16,703,887	4,187,893	5,468,284	474,793	63,335	40,228	624,115	11,474	1159	27,066	68,488	1345	65,063	2,523,787	36,049	77,292	104,621	92,126	334,677	764,033	536,428	1,218,698	3,127,874	985,723	25,135	29,524	1,623,891	93-00
1900-1901 ..	2,212	17,207,328	4,620,971	6,243,593	503,051	82,921	41,925	633,770	11,421	1336	30,658	72,712	1566	72,868	2,412,191	51,059	78,844	96,519	92,830	380,803	772,571	551,879	1,366,241	3,339,687	1,051,695	28,303	33,129	1,874,586	88-75
1901-1902 ..	2,235	18,170,722	5,066,360	7,356,136	575,697	100,778	45,322	677,804	11,926	1506	30,404	79,561	1564	83,458	2,724,860	55,159	86,378	101,878	100,236	427,153	813,345	556,395	1,443,792	3,529,177	1,110,575	30,303	33,129	1,874,586	87-75
1902-1903 ..	2,291	19,081,735	5,443,333	7,575,390	576,529	118,431	49,169	731,762	12,737	1646	34,202	87,273	1921	102,461	3,821,333	61,844	121,092	116,309	100,498	436,008	718,376	633,685	1,604,426	3,730,394	1,189,101	29,960	42,006	1,974,038	87-00
1903-1904 ..	2,328	20,692,911	5,685,399	8,306,383	652,080	129,919	52,580	798,800	14,629	2056	36,816	110,151	2340	107,435	3,756,378	70,268	132,562	101,316	106,066	509,712	820,453	658,144	1,744,323	4,072,576	1,293,169	33,074	39,587	2,180,641	91-75
1904-1905 ..	2,374	21,701,572	6,107,079	8,514,112	680,905	140,453	57,252	825,468	15,651	2228	38,592	115,051	2307	110,924	3,412,984	77,768	131,714	107,625	109,174	493,327	732,479	630,832	1,806,360	4,011,511	1,277,976	40,067	37,980	2,209,231	86-50
1905-1906 ..	2,406	22,498,972	6,418,573	8,826,382	723,867	147,989	63,006	892,037	17,008	2376	40,097	142,642	2350	119,311	3,348,685	92,702	144,884	116,086	106,510	534,533	772,258	628,603	1,938,548	4,241,422	1,346,038	38,518	35,633	2,349,704	87-75
1906-1907 ..	2,456	23,504,272	6,755,454	9,600,786	823,067	165,504	68,986	929,929	17,770	2440	42,081	151,913	2496	133,031	4,661,001	115,222	168,316	128,161	109,236	567,835	770,706	712,399	2,135,446	4,592,099	1,498,686	44,692	37,256	2,624,600	93-00
1907-1908 ..	2,471	24,365,647	7,051,274	9,756,716	835,473	185,174	77,505	937,565	18,423	2829	47,766	176,876	2530	150,751	4,593,100	125,987	169,767	120,593	110,154	616,892	739,568	757,647	2,319,913	4,834,534	1,582,328	50,143	39,613	2,761,938	93-75
1908-1909 ..	2,682	27,762,592	7,458,236	10,457,144	921,411	192,547	90,248	961,293	19,124	2550	50,798	187,040	2427	159,884	5,211,489	117,626	182,666	137,916	102,620	582,860	793,793	729,971	2,342,048	4,871,874	1,630,704	57,147	42,976	2,929,526	94-00

EXPENDITURE.

Year.	Expenditure per Train-mile.	Expenditure per Cent. of Revenue.	Maintenance of Way.				Locomotive Power.			Carriages and Wagons.			Traffic.			Head and Departmental Offices.			General Charges and Sundries.			Less Credit Recoveries.			Total Expenditure.
			Amount.	Per Cent. of Revenue.	Per Mile of Railway.	Per Train-mile.	Amount.	Per Cent. of Revenue.	Per Train-mile.	Amount.	Per Cent. of Revenue.	Per Train-mile.	Amount.	Per Cent. of Revenue.	Per Train-mile.	Amount.	Per Cent. of Revenue.	Per Train-mile.	Amount.	Per Cent. of Revenue.	Per Train-mile.	Amount.	Per Cent. of Revenue.	Per Train-mile.	
1882-83 ..	d. 51-07	£ 62-18	£ 209,823	£ 22-01	£ 155-54	d. 18-08	£ 153,607	£ 16-11	d. 13-23	£ 38,887	£ 4-08	d. 3-35	£ 156,334	£ 16-40	d. 13-47	£ ..	£ ..	d. ..	£ 34,170	£ 3-58	d. 2-94	£ ..	£ ..	d. ..	£ 592,821
1883-84 ..	55-40	68-24	233,936	24-34	169-29	19-76	162,558	16-91	13-73	51,304	5-34	4-33	166,848	17-36	14-09	..	..	..	41,345	4-30	3-49	..	..	..	655,990
1884-85 ..	57-45	65-99	254,329	24-32	176-87	21-18	166,576	15-93	13-87	56,245	5-38	4-68	171,822	16-43	14-30	..	..	..	41,055	3-93	3-42	..	..	..	690,026
1885-86 ..	54-85	65-91	247,566	23-64	160-32	19-67	162,860	15-55	12-94	55,303	5-28	4-40	180,352	17-22	14-33	..	..	..	44,259	4-22	3-51	..	..	..	690

RETURN No. 17.

STATEMENT of STORES CONTRACTS current during the Year ending 31st March, 1909.

Service.	Period.	Name of Contractor.	Rate.
General stores—			
Auckland—			
General ironmongery	31/3/1911	A. and T. Burt (Limited)	As per tender.
Furnishing ironmongery	"	Briscoe and Co. "	"
Ironmongery — Bolts, nuts, and rivets	"	John Burns and Co. (Limited)	"
" Tools, &c.	"	Briscoe and Co. "	"
" Plumbers' and gas-fitters'	"	John Burns and Co. "	"
Soap and candles	"	John Newton and Sons (Limited)	"
Drapery	"	Sargood, Son, and Ewen "	"
Galvanised iron and tinware goods	"	A. and T. Burt "	"
Chemicals, drugs, &c.	"	Kemphorne, Prosser, and Co. (Limited)	"
Disinfectants	"	John Burns and Co. (Limited)	"
Oils, colours, &c.	"	"	"
Oil, kerosene	"	Vacuum Oil Company "	"
Ship-chandlery, &c.	"	John Burns and Co. "	"
Bricks, red	"	J. J. Craig "	"
Drain-pipes	"	"	"
Firebricks and fireclay	"	"	"
Indiarubber goods, &c.	"	A. and T. Burt "	"
Iron and steel	"	Briscoe and Co. "	"
Iron, sheet, galvanised	"	Southern Cross Galvanised Iron Company (Limited)	"
Leather, &c.	"	John Burns and Co. (Limited)	"
Colonial cement	31/3/1909	Wilson's Cement Company (Limited)	"
Colonial lime	"	J. J. Craig (Limited)	"
Wellington—			
General ironmongery	31/3/1911	Briscoe and Co. (Limited)	"
Furnishing ironmongery	"	"	"
Ironmongery — Bolts, nuts, and rivets	"	"	"
" Tools, &c.	"	"	"
" Plumbers' and gas-fitters'	"	"	"
Explosives	31/3/1909	"	"
Soap and candles	31/3/1911	John Newton and Sons (Limited)	"
Drapery	"	Te Aro House "	"
Galvanised iron and tinware goods	"	A. and T. Burt "	"
Chemicals, drugs, &c.	"	Kemphorne, Prosser, and Co. (Limited)	"
Disinfectants	"	"	"
Oils, colours, &c.	"	Smith and Smith (Limited)	"
Oil, kerosene	"	Vacuum Oil Company (Limited)	"
Ship-chandlery, &c.	"	Briscoe and Co. "	"
Bricks, red	"	P. Hutson and Co. "	"
Drain-pipes	"	Herbert Hill	"
Firebricks and fireclay	"	P. Hutson and Co. (Limited)	"
Indiarubber goods, &c.	"	A. R. Hislop	"
Iron and steel	"	Briscoe and Co. (Limited)	"
Leather, &c.	"	"	"
Colonial cement	31/3/1909	N.Z. Portland Cement Company (Limited)	"
Colonial lime	"	"	"
Christchurch—			
General ironmongery	31/3/1911	Ashby, Bergh, and Co. (Limited)	"
Furnishing ironmongery	"	"	"
Ironmongery — Bolts, nuts, and rivets	"	"	"
" Tools, &c.	"	"	"
" Plumbers' and gas-fitters'	"	"	"
Explosives	"	"	"
Soap and candles	"	McLeod Bros. (Limited)	"
Drapery	"	Ross and Glendining (Limited)	"
Galvanised iron and tinware goods	"	Ashby, Bergh, and Co. "	"
Chemicals, drugs, &c.	"	"	"
Disinfectants	"	"	"
Oils, colours, &c.	"	E. Reece and Sons	"
Oil, kerosene	"	Vacuum Oil Company (Limited)	"
Ship-chandlery, &c.	"	E. Reece and Sons	"
Bricks, red	"	Ashby, Bergh, and Co. (Limited)	"
Drain-pipes	"	"	"
Firebricks and fireclay	"	"	"
Indiarubber goods, &c.	"	"	"
Iron and steel	"	Anderson's (Limited)	"
Leather, &c.	"	Ashby, Bergh, and Co. (Limited)	"
Colonial cement	"	Christchurch Brick Company (Limited)	"
Colonial lime	"	"	"

RETURN No. 17—*continued.*STATEMENT of STORES CONTRACTS current, &c.—*continued.*

Service.	Period.	Name of Contractor.	Rate.
General stores— <i>continued.</i>			As per tender.
Dunedin—			
General ironmongery	31/3/1911	Briscoe and Co. (Limited)	"
Furnishing ironmongery	"	John Edmond	"
Ironmongery—Bolts, nuts, and rivets	"	"	"
" Tools, &c.	"	"	"
" Plumbers' and gas-fitters'	"	Briscoe and Co. (Limited)	"
Explosives	31/3/1909	"	"
Soap and candles	31/3/1911	McLeod Bros. (Limited)	"
Drapery	"	Ross and Glendining (Limited)	"
Galvanised iron and tinware goods	"	Briscoe and Co. (Limited)	"
Chemicals, drugs, &c.	"	Kempthorne, Prosser, and Co. (Limited)	"
Disinfectants	"	"	"
Oils, colours, &c.	"	Briscoe and Co. (Limited)	"
Oil, kerosene	"	Vacuum Oil Company (Limited)	"
Ship-chandlery, &c.	"	Briscoe and Co. (Limited)	"
Bricks, red	"	C. and W. Gore	"
Drain-pipes	"	P. McSkimming and Son	"
Firebricks and fireclay	"	"	"
Indiarubber goods, &c.	"	A. and T. Burt (Limited)	"
Iron and steel	"	Briscoe and Co.	"
Leather, &c.	"	Brace, Windle, Blyth, and Co.	"
Colonial cement	31/3/1909	Wilson's Cement Company (Limited)	"
Colonial lime	31/3/1911	Milburn Lime and Cement Company (Limited)	"
Invercargill—			
General ironmongery	"	Briscoe and Co. (Limited)	"
Furnishing ironmongery	"	John Edmond	"
Ironmongery—Bolts, nuts, and rivets	"	"	"
" Tools, &c.	"	"	"
" Plumbers' and gas-fitters'	"	Briscoe and Co. (Limited)	"
Explosives	31/3/1909	N.Z. Hardware Company (Limited)	"
Drapery	31/3/1911	Ross and Glendining	"
Galvanised iron and tinware goods	"	Briscoe and Co.	"
Chemicals, drugs, &c.	"	Kempthorne, Prosser, and Co. (Limited)	"
Disinfectants	"	"	"
Oils, colours, &c.	"	Briscoe and Co. (Limited)	"
Ship-chandlery, &c.	"	"	"
Drain-pipes	"	T. Todd and Sons	"
Firebricks and fireclay	"	P. McSkimming and Son	"
Indiarubber goods, &c.	"	A. and T. Burt (Limited)	"
Iron and steel	"	Briscoe and Co.	"
Leather, &c.	"	Brace, Windle, Blyth, and Co.	"
Colonial cement	"	J. E. Watson and Co. (Limited)	"
Colonial lime	"	"	"
Greymouth—			
General ironmongery	"	D. McLean	"
Furnishing ironmongery	"	"	"
Ironmongery—Bolts, nuts, and rivets	"	Forsyth and McKay	"
" Tools, &c.	"	"	"
" Plumbers' and gas-fitters'	"	D. McLean	"
Soap and candles	"	John Newton and Sons (Limited)	"
Drapery	"	Te Aro House (Limited)	"
Galvanised iron and tinware goods	"	D. McLean	"
Chemicals, drugs, &c.	"	Kempthorne, Prosser, and Co. (Limited)	"
Disinfectants	"	"	"
Oils, colours, &c.	"	D. McLean	"
Oil, kerosene	"	"	"
Ship-chandlery, &c.	"	Forsyth and McKay	"
Bricks, red	"	"	"
Drain-pipes	"	"	"
Firebricks and fireclay	"	"	"
Indiarubber goods, &c.	"	"	"
Iron and steel	"	"	"
Colonial cement	"	D. McLean	"
Colonial lime	"	Forsyth and McKay	"
Westport—			
General ironmongery	"	G. H. Gothard (Limited)	"
Furnishing ironmongery	"	"	"
Ironmongery—Bolts, nuts, and rivets	"	"	"
" Tools, &c.	"	"	"
Soap and candles	"	John Newton and Sons (Limited)	"
Drapery	"	Ross and Glendining	"

RETURN No. 17—continued.

STATEMENT of STORES CONTRACTS current, &c.—continued.

Service.	Period.	Name of Contractor.	Rate.
General stores—continued.			
<i>Westport—continued.</i>			
Chemicals, drugs, &c.	31/3/1911	Kemphorne, Prosser, and Co. (Limited)	As per tender.
Disinfectants	"	"	"
Iron and steel	"	G. H. Gothard (Limited)	"
<i>Printed stationery</i>			
Horse-forage, at Auckland	31/3/1909	Government Printer	"
" Christchurch	"	J. J. Craig (Limited)	"
"	"	G. Treleaven and Co.	"
Native-timber supply—			
Christchurch	"	Williams, Stephens, and Co. ..	"
Dunedin	"	Massey and Co. ..	"
Invercargill	"	" ..	"
Coal-supply—			
Whangarei	"	Hikurangi Coal Company (Limited)	"
Auckland	"	Taipiri Coal-mines ..	"
Dunedin-Gore	"	Kaitangata Coal Company ..	"
South of Gore	"	Nightcaps Coal Company ..	"
North Island	"	State Coal-mines ..	"
South Island	"	" ..	"
Uniforms—			
Stationmasters	31/3/1910	Ross and Glendining (Limited)	"
Guards and porters	"	A. Levy ..	"
Uniform caps—			
Stationmasters, summer	"	Ross and Glendining (Limited)	9/3 each.
" winter	"	" ..	9/9 "
Drivers and firemen, summer	"	" ..	3/6 "
" winter	"	" ..	4/6 "
Guards and porters, summer	"	" ..	3/6 "
" winter	"	" ..	3/9 "
White linen cap-covers	"	" ..	10½d. "
Rainproof cap-covers	"	" ..	2/ "
30,000 gallons castor-oil	31/4/1908	National Mortgage and Agency Company of N.Z. (Limited)	2/5½ per gal.
30,000 " "	31/12/1908	Ditto ..	2/3½ "
16,000 " filtered valve-oil	17/7/1908	Philips and Pike ..	2/ "
55,000 " 300° mineral colza oil ..	31/3/1910	James Service and Co. ..	9½d. "
7,000 " double-boiled linseed-oil ..	31/10/1908	H. Quane and Co. ..	2/5½ "
4,500 " raw linseed-oil	"	" ..	2/4½ "
6,000 " double-boiled linseed-oil ..	30/4/1909	Mason, Struthers, and Co. (Limited)	2/3½ "
4,700 " raw linseed-oil	"	" ..	2/2½ "
Ironbark timber at Auckland			
" piles	11/4/1908	Richardson and Blair ..	24/9 & 29/3 per 100 ft.
" timber at Wanganui	"	E. D. Pike and Co. ..	2/9 per lin. ft.
" piles	"	" ..	30/ and 26/ per 100 ft.
" timber at Wellington	"	Fraser and Co. ..	2/7 per lin. ft.
" " Lyttelton	"	E. D. Pike and Co. ..	27/ and 28/ per 100 ft.
" piles	"	" ..	25/ and 26/ "
" timber at Dunedin	"	" ..	2/5 per lin. ft.
"	"	" ..	28/9 & 30/9 per 100 ft.
Packing-cases for stationery	31/3/1909	Wm. Chalmers ..	As per tender.
Brush-box timber at Auckland			
" Wellington	11/4/1908	Richardson and Blair ..	22/9 per 100 ft.
" Dunedin	"	Fraser and Co. ..	23/ "
"	"	E. D. Pyke and Co. ..	25/3 "
Ironbark timber at Auckland			
" Wanganui	31/12/1909	J. W. Wallace and Co. ..	24/9 & 30/9 per 100 ft.
" Lyttelton	"	" ..	27/6 and 32/6 "
" Dunedin	"	" ..	24/ and 30/ "
" Wellington	"	" ..	26/9 and 31/9 "
" Picton	"	Gollin and Co. Proprietary (Limited)	25/6 and 27/6 "
" Invercargill	"	" ..	27/ and 30/6 "
" Nelson	"	Samuel Brown (Limited)	21/ "
" Greymouth	"	" ..	25/6 "
" Westport	"	Fraser and Co. ..	26/ and 31/6 "
" piles at Auckland	"	" ..	26/ "
" Wanganui	"	J. W. Wallace and Co. ..	2/7 per lin. ft.
" Lyttelton	"	" ..	2/9 "
" Dunedin	"	" ..	2/11 "
" Wellington	"	" ..	2/6 "
" Picton	"	Gollin and Co. Proprietary (Limited)	2/7 "
" Invercargill	"	" ..	2/5 "
" Nelson	"	Samuel Brown (Limited)	2/8 "
" Greymouth	"	" ..	2/3 "
"	"	Fraser and Co. ..	2/11 "

RETURN NO. 17—*continued.*STATEMENT of STORES CONTRACTS current, &c.—*continued.*

Service.	Period.	Name of Contractor.	Rate.
Brush-box timber at Auckland ..	3/12/1909	J. W. Wallace and Co. ..	24/9 per 100 ft.
" Wellington ..	"	Gollin and Co. Proprietary (Limited) ..	27/6 "
" Greymouth ..	"	Fraser and Co. ..	24/6 "
Jarrah sleepers, 7 ft. by 8 in. by 5 in.—			
30,000 at Wellington ..	30/4/1908	Samuel Brown (Limited) ..	3/9½ each.
20,000 " Timaru ..	"	" ..	3/9½ "
10,000 " Dunedin or Bluff ..	31/7/1908	Millar's West Australian Hardwood Company (Limited)	3/9½ "
20,000 " Timaru ..	30/6/1908	Ditto ..	3/11½ "
43,000 " Bluff ..	30/9/1908	" ..	4/ "
40,000 " Dunedin ..	31/8/1908	" ..	3/8 "
25,000 " Auckland ..	"	South-west Timber-hewers' Co-operative Society (Limited)	3/6 "
25,000 " Wellington ..	"	Ditto ..	3/6 "
25,000 " Dunedin ..	"	" ..	3/6 "
30,000 " Bluff ..	"	" ..	3/6 "
25,000 " Auckland ..	2/1/1909	" ..	3/8½ and 3/9 each.
25,000 " Lyttelton ..	"	" ..	" "
50,000 " Wellington ..	"	" ..	" "
New South Wales hardwood sleepers, 7 ft. by 8 in. by 5 in.—			
10,000 at Auckland ..	31/12/1908	Samuel Brown (Limited) ..	3/8½ each.
Ironbark sleepers, 7 ft. by 8 in. by 5 in. 2,000 at Wellington ..	"	Richardson and Blair ..	4/2 "
Auckland District—			
338,700 sup. ft. kauri timber ..	31/3/1909	Merchants and mills in district	12/ to 21/6 per 100 ft.
620,200 " red-pine " ..	"	Merchants, mills, and Public Works Department	11/ to 17/6 "
80,100 " white-pine " ..	"	Ditto ..	11/ to 14/6 "
171,500 " matai " ..	"	" ..	12/ to 19/ "
456,100 " totara " ..	"	" ..	16/ to 18/ "
722,000 " jarrah " ..	"	Millar's Jarrah Company ..	19/ to 22/ "
2,500 " Tuart " ..	"	" ..	30/ "
6,800 " maugaio " ..	"	Merchants in district ..	20/ "
12,200 " Oregon-pine " ..	"	" ..	17/6 and 22/ "
1,150 " yellow-pine " ..	"	" ..	14/6 "
44,000 ft. mouldings ..	"	" ..	Various.
Wellington - Napier - New Plymouth District—			
106,500 sup. ft. kauri timber ..		Merchants in Auckland District ..	20/6 to 36/ per 100 ft.
48,800 " kauri " ..		" Wellington District ..	List rates.
1,349,100 " red-pine " ..		Merchants, mills, and Public Works Department	"
187,600 " white-pine " ..	"	Ditto ..	"
130,500 " matai " ..	"	" ..	"
215,200 " totara " ..	"	" ..	"
4,000 " V.D.L. " ..	"	Merchants in district ..	"
3,000 " spotted-gum " ..	"	" ..	30/ per 100 ft.
33,400 " Oregon-pine " ..	"	" ..	17/ to 23/6 per 100 ft.
8,400 " Tuart " ..	"	Millar's Jarrah Company ..	30/ "
1,238,500 " jarrah " ..	"	" ..	19/ and 20/ "
5,690 ft. jarrah piles ..	"	" ..	3/ per ft.
1,950 " clear-pine timber ..	"	Merchants in district ..	9d. "
4,863 " teak timber ..	"	Castendyke and Focke ..	6½d. "
43,100 " mouldings ..	"	Merchants in district ..	List rates.
Christchurch District—			
137,500 sup. ft. kauri timber ..	"	Merchants in Christchurch and Auckland Districts	15/ to 33/ per 100 ft.
12,600 " red-pine figured timber ..	"	Merchants in district ..	18/ to 28/ "
3,300 " matai timber ..	"	" ..	21/ to 23/6 "
100,000 " white-pine " ..	"	" ..	17/ to 18/ "
3,000 " yellow-pine " ..	"	" ..	33/ to 38/ "
13,800 " V.D.L. " ..	"	" ..	15/6 and 16/ "
16,800 " Oregon-pine " ..	"	" ..	14/6 to 17/3 "
6,000 " clear-pine " ..	"	" ..	66/ "
170,400 " jarrah " ..	"	Millar's Jarrah Company ..	19/ to 22/ "
7,800 " architraves ..	"	Merchants in district ..	13/3 to 16/ "
27,600 ft. mouldings ..	"	" ..	Various.
4,400 sup. ft. skirting ..	"	" ..	16/3 to 18/ per 100 ft.
6,200 ft. teak timber ..	"	Castendyke and Focke ..	6½d. per ft.
8,300 V.D.L. palings ..	"	Merchants in district ..	20/9 to 22/6 per 100 ft.
Dunedin District—			
57,900 sup. ft. kauri timber ..	"	Merchants in Dunedin and Auckland Districts	18/6 to 32/ per 100 ft.
7,500 " V.D.L. " ..	"	Merchants in district ..	18/6 "
1,400 " clear-pine " ..	"	" ..	50/ and 55/ "

RETURN No. 17—*continued.*STATEMENT of STORES CONTRACTS current, &c.—*continued.*

Service.	Period.	Name of Contractor.	Rate.
Dunedin District— <i>continued.</i>			
1,100 sup. ft. Oregon-pine timber	31/3/1909	Merchants in district	21/ per 100 ft.
354,300 " jarrah timber	"	Millar's Jarrah Company	18/ to 23/ per 100 ft.
9,600 ft. mouldings	"	Merchants in district	Various.
2,000 V.D.L. palings	"	"	22/6 & 24/ per 100 ft.
Invercargill District—			
9,000 sup. ft. kauri timber ..	"	"	27/6 to 48/ "
16,900 " birch " ..	"	"	7/6 to 14/ "
7,200 " miro " ..	"	"	11/ "
7,600 " V.D.L. " ..	"	"	18/6 to 22/ "
3,000 " Baltic-pine " ..	"	"	34/6 and 40/ "
10,600 ft. mouldings	"	"	Various.
Westland District—			
144,400 sup. ft. red-pine timber ..	"	Mills and merchants in district ..	7/ to 16/ "
20,200 " silver-pine " ..	"	"	17/ to 21/ "
9,900 " white-pine " ..	"	"	8/ "
4,600 " birch " ..	"	"	10/ "
Westport District—			
60,000 sup. ft. red-pine timber ..	"	"	9/ to 14/6 "
47,000 " silver-pine " ..	"	"	17/6 to 25/ "
8,800 " white-pine " ..	"	"	9/ "
7,400 " birch " ..	"	"	13/6 "
2,000 ft. mouldings	"	"	9/6 to 14/6 "
Nelson District—			
14,900 sup. ft. red-pine timber ..	"	Merchants in district	11/ "
12,800 " white-pine " ..	"	"	10/ to 11/ "
2,500 " totara " ..	"	"	28/ and 30/ "
6,800 " birch " ..	"	"	16/ and 16/6 "
Picton District—			
40,000 sup. ft. red-pine timber ..	"	"	12/6 to 16/6 "
20,200 " white-pine " ..	"	"	8/6 to 11/6 "
3,900 " matai " ..	"	"	20/ to 23/6 "
3,200 " jarrah " ..	"	"	26/ and 27/ "
1,300 " totara " ..	"	"	25/6 "
1,200 ft. mouldings	"	"	11/ to 25/ "
1,950 " birch piles	"	"	1/ per ft.
Auckland District—			
5,730 puriri sleepers	"	Settlers and mills in district ..	4/ to 4/3 each.
540 " "	"	"	2/6 to 3/9 "
22,800 totara "	"	"	3/3 to 3/6 "
Wellington—Napier—New Plymouth District—			
1,910 totara sleepers	"	"	3/6 each.
73,660 creosoting sleepers	"	"	1/9 "
Invercargill District—			
50,700 creosoting sleepers	"	"	1/6 & 1/8 each.
3,600 " "	"	"	2/ "
Westland District—			
14,500 silver-pine sleepers	"	"	3/3 each.
2,020 ironbark "	"	E. D. Pike and Co.	3/11 "
9,600 sup. ft. silver-pine crossing sleepers	"	Mills in district	19/ per 100 ft.
Westport District—			
17,370 silver-pine sleepers	"	Settlers and mills in district ..	3/3 and 3/5 each.

RETURN No. 18.

STATEMENT of WEIGHING-MACHINES, WEIGHBRIDGES, TRAVERSERS, TURNABLES, CRANES, and PUMPS for the Year ending 31st March, 1909.

Description.	Kawakawa.	Whangarei.	Kaihu.	Gisborne.	North Island Main Line and Branches.	South Island Main Line and Branches.	Westland.	Westport.	Nelson.	Picton.	Total.
WEIGHING-MACHINES—											
$\frac{1}{2}$ cwt.	1	..	..	..	..	1
1 "	3	..	..	..	3
$1\frac{1}{2}$ "	1	..	..	..	..	1
2 "	3	..	12	13	2	1	..	..	31
$2\frac{1}{4}$ "	1	..	..	..	11	..	..	..	..	12
$2\frac{3}{4}$ "	2	..	..	..	..	2
3 "	8	7	3	..	2	..	20
$3\frac{1}{2}$ "	1	..	..	..	..	1
4 " ..	2	..	..	..	50	30	3	1	..	..	86
5 "	1	..	..	24	29	..	..	6	..	60
$5\frac{1}{2}$ "	5	..	..	..	..	5
$6\frac{1}{2}$ "	1	2	28	37	..	1	..	..	69
7 "	1	..	..	..	1	..	..	..	..	1
8 "	9	8	..	..	..	..	18
9 "	13	6	..	..	..	..	19
10 "	2	4	..	..	..	..	6
11 "	2	..	..	34	55	8	..	..	3	102
12 "	1	1	19	32	..	2	2	..	57
$12\frac{1}{2}$ "	2	7	1	..	..	..	10
13 "	1	..	..	..	..	1
14 "	3	6	..	..	..	..	9
15 "	2	..	..	..	..	2
16 "	8	9	..	..	..	..	17
17 "	1	..	14	26	..	1	2	..	44
20 "	1	..	..	..	..	1
21 "	5	4	..	..	..	1	10
22 "	2	..	..	..	..	..	2
23 "	3	2	..	..	..	..	5
60 "	1	..	..	..	..	1
4 lb.	1	..	..	..	..	..	1
144 "	1	..	..	..	..	1
240 "	4	..	..	..	..	4
244 "	3	..	..	..	..	3
248 "	1	..	..	..	..	1
250 "	1	..	..	..	..	1
600 "	1	..	..	..	..	1
700 "	1	..	..	..	..	1
900 "	1	..	..	..	..	1
2,340 "	1	..	..	..	..	1
2,352 "	1	..	..	..	..	1
2,464 "	9	..	..	..	..	9
3,024 "	1	..	..	..	..	1
Totals ..	2	5	5	4	237	328	20	6	12	4	623
WEIGHBRIDGES :—											
3 tons (cart)	1	1	..	..	..	..	2
6 " "	1	..	..	..	..	1
7 " "	1	..	..	..	..	1
8 " "	2	..	..	..	..	2
10 " "	1	..	..	..	..	1
10 " (wagon)	2	..	..	..	..	2
11 " "	2	..	..	..	..	..	2
12 " "	7	2	..	..	1	1	11
14 " "	2	..	..	..	..	..	2
15 " "	1	..	..	..	..	..	1
18 " "	1	..	..	..	..	1
20 " "	1	..	..	9	17	1	4	..	1	33
25 " "	3	3	2	..	..	..	8
30 " "	1	2	..	..	..	..	3
40 " "	1	..	..	..	..	1
Total	1	..	..	26	34	3	4	1	2	71
TRAVERSERS ..											
..	2	19	..	..	1	1	23
TURNABLES :—											
43-feet (engine)	1	..	..	..	..	1
50 " "	19	27	..	..	..	..	46
55 " "	7	9	..	..	..	..	16
12 " (wagon)	3	..	..	..	..	3
13 " "	8	33	..	..	1	..	42
14 " "	5	8	1	..	1	..	15
Total	39	81	1	..	2	..	123

RETURN No. 18—continued.

STATEMENT of WEIGHING-MACHINES, &c.—continued.

Description.	Kawakawa.	Whangarei.	Kaihu.	Gisborne.	North Island Main Line and Branches.	South Island Main Line and Branches.	Westland.	Westport.	Nelson.	Picton.	Total.
CRANES :—											
1-ton, stationary, hand	1	..	..	..	..	1
1 " " "	16	10	..	..	..	..	26
1½ " " "	38	14	3	..	3	2	60
2 " " "	6	14	..	..	1	..	21
3 " " "	3	..	..	..	..	3
4 " " "	6	24	..	..	..	..	30
5 " " "	1	5	..	..	..	..	6
7 " " "	1	3	..	..	..	..	4
10 " " "	3	4	..	..	..	..	7
15 " " "	2	..	..	..	..	2
20 " " "	1	..	1
1½ " " hydraulic	1	..	..	..	..	1
8 " " "	2	..	..	..	2
1½ travelling, overhead	2	..	..	..	..	..	2
1 " " "	17	5	2	2	..	..	26
1½ " " "	1	..	..	..	..	..	1
2 " " hand	10	..	2	1	1	1	15
3 " " "	2	..	..	..	..	2
5 " " "	9	4	2	1	1	1	18
6 " " "	1	..	..	..	..	1
10 " " "	2	2	..	..	..	..	4
1½ " " steam	1	..	..	..	1	..	2
2 " " "	2	8	..	..	..	..	10
3 " " "	..	1	..	..	4	7	..	1	..	..	13
5 " " "	2	4	1	..	..	..	7
7 " " "	..	2	..	..	9	5	1	..	..	..	17
7½ " " "	1	..	..	..	..	1
12 " " "	1	1	..	..	2
15 " " "	1	..	..	1
20 " " "	2	..	..	2
Pile-driving and hoisting engines, steam	14	5	1	2	..	1	23
Total	1	2	..	..	144	125	15	11	8	5	311
WATER-SERVICES :—											
Steam	1	1	..	8	10	2	1	..	..	23
Hand	1	..	1	4	51	78	4	..	1	2	142
Windmill	1	..	21	53	2	..	1	5	83
Hot-air	1	..	..	1	2	12	..	..	1	..	17
Hydraulic	27	27	1	..	1	..	56
Oil	1	25	15	..	..	..	..	41
Gravitation	3	3	..	56	39	15	7	3	..	126
Gas-engine	1	..	..	..	..	..	1
Total	2	4	6	6	191	234	24	8	7	7	489

RETURN No. 19.

STATEMENT of RAILS RELAID during the Year ending 31st March, 1909.

Weight.	Kawakawa.	Whangarei.	Kaihu.	Gisborne.	North Island Main Line and Branches.	South Island Main Line and Branches.	Westland.	Westport.	Nelson.	Picton.	Total.
RAILS RELAID :—											
55 lb. steel	50	..	..	..	..	..	50
70 lb. steel	11,965	11,247	254	5	..	..	23,471
Total	12,015	11,247	254	5	..	..	23,521

RETURN No. 20.

STATEMENT of SLEEPERS RELAID and REMOVED during the Year ending 31st March, 1909.

Description.	Kawakawa.	Whangarei.	Kahu.	North Island Main Line and Branches.	Gisborne.	South Island Main Line and Branches.	Westland.	Westport.	Nelson.	Picton.	Total.
SLEEPERS RELAID :—											
Black-pine ...	...	...	...	...	...	197	...	...	...	...	197
Totara ...	198	98	316	17,554	...	...	...	...	...	...	18,166
Birch ...	...	...	...	...	...	40	...	...	...	386	426
Jarrah ...	116	30	...	76,962	...	110,359	...	...	678	7	188,152
Silver-pine ...	...	...	...	38	...	11,724	17,650	3,260	3,051	4,753	40,476
Puriri ...	172	83	20	2,674	...	10	...	...	...	...	2,959
Creosoted ...	...	...	...	4,857	...	25,809	...	...	...	...	30,666
Ironbark ...	...	...	...	5,490	...	5,378	286	4	...	293	11,451
Grey-gum ...	...	...	...	...	...	54	...	...	...	...	54
Kauri ...	...	...	...	2	...	...	...	...	...	...	2
Total ...	486	211	336	107,577	...	153,571	17,936	3,264	3,729	5,439	292,549
SLEEPERS REMOVED :—											
Black-pine ...	...	...	...	903	...	22,824	...	...	...	...	23,727
Totara ...	10	29	...	39,491	...	40,296	...	...	...	...	79,826
Birch ...	...	...	...	1,436	...	6,417	11,580	2,182	260	4,783	26,658
Jarrah ...	...	...	...	775	...	10,633	...	...	...	...	11,408
Silver-pine ...	...	104	...	8,475	...	40,685	2,436	100	3,416	1	55,217
Puriri ...	261	...	20	41,265	...	6,553	...	...	...	...	48,099
Creosoted ...	...	...	...	2,589	...	5,771	...	...	...	...	8,360
Ironbark ...	...	...	...	10,137	...	4,181	...	...	...	...	14,318
Grey-gum ...	...	...	...	645	...	3,968	...	...	...	...	4,613
Kauri ...	194	48	316	2,531	...	871	...	...	...	...	3,960
Maire ...	...	...	...	533	...	...	...	...	...	...	533
Blue-gum ...	...	...	...	50	...	44	...	...	...	...	94
Rimu ...	...	...	...	1,636	...	382	...	...	...	...	2,018
Kamai ...	...	...	...	...	...	167	...	...	...	...	167
Red-gum ...	...	...	...	192	...	...	...	...	...	...	192
Total ...	465	181	336	110,658	...	142,792	14,016	2,282	3,676	4,784	279,190

RETURN No. 21.

RETURN of NUMBER of STATIONS and PRIVATE SIDINGS on each Section for the Year ending 31st March, 1909.

Sections.	Miles chains.	Number of Stations and Stopping-places on the Time-tables.	Number of Private Sidings.		
			At Stations.	Out of Stations.	Total.
Kawakawa	7 39	4	..	1	1
Whangarei	22 44	12	3	4	7
Kaihu	17 15	11	..	3	3
Gisborne	23 26	12	2	1	3
North Island Main Line and Branches ..	1,069 49	377	72	36	108
South Island Main Line and Branches ..	1,299 27	486	131	24	155
Westland	130 43	63	24	5	29
Westport	30 17	16	4	..	4
Nelson	47 55	19	3	1	4
Picton	33 44	16	4	2	6
Totals	2,681 39	1,016	243	77	320

RETURN NO. 22.

COMPARATIVE STATEMENT OF MILEAGE OF RAILWAYS OPEN FOR TRAFFIC AND UNDER MAINTENANCE ON 31st March, 1909.

Section.	Mileage open for Traffic on 31st March, 1908.	Additional Lengths opened during Year.			Reduced Mileage equivalent to Maintenance for whole Period.	Length closed during Year.		Net Addition to Mileage open for Traffic.	Net Addition to Mileage under Maintenance.	Total Mileage open for Traffic on 31st March, 1909.	Equivalent Total Mileage maintained during Financial Year ended 31st March, 1909.
		Line opened.	Date of Opening.	Length opened.		Line.	Length.				
				M. ch.	M. ch.		M. ch.	M. ch.	M. ch.	M. ch.	M. ch.
Kawakawa	...	...	...	...	...	...	...	...	...	7 39	7 39
Whangarei	...	...	...	...	...	...	...	...	...	22 44	22 44
Kaihu	...	...	...	...	...	...	...	...	...	17 15	17 15
North Island Main Line and Branches	886 53	Douglas-Huiroa	1st April, 1908	4 59	4 59	...	...	...	...	...	...
		Mount Egmont Branch	" "	6 2	6 2	...	...	...	...	...	...
		Tauhoa-Wayby	18th May, 1908	3 50	3 13	...	...	...	...	...	...
		Mataroa-Waiouru	1st July, 1908	18 11	13 49	...	...	...	...	...	...
		Taumarunui-Erua	9th November, 1908	36 0	14 8	...	...	...	...	...	...
		Wellington-Longburn	7th December, 1908	83 67	26 33	...	...	...	...	...	...
Gisborne	20 1	Erua-Waiouru	15th February, 1909	30 47	3 62	...	...	...	...	...	...
South Island Main Line and Branches	1,284 26	Puha-Waikohu	28th May, 1908	3 25	2 64	...	...	3 25	2 64	23 26	22 65
		Waikaka Branch	27th November, 1908	12 57	4 28	...	...	12 57	4 28	1,297 3	1,288 54
Ditto, Private Line—Nightcaps Branch	2 24	...	...	...	...	...	...	...	...	2 24	2 24
Westland	125 12	Reefton-Cronadun	1st September, 1908	5 31	3 10	...	...	5 31	3 10	130 43	128 22
Westport	30 17	...	...	...	...	...	...	...	...	30 17	30 17
Nelson	42 40	Tadmor-Kiwi	18th December, 1908	5 15	1 38	...	...	5 15	1 38	47 55	43 78
Pictou	33 44	...	...	...	...	...	...	...	...	33 44	33 44
Total	2,471 75	...	...	209 44	83 46	...	...	209 44	83 46	2,681 39	2,555 41

RETURN NO. 23.
STATEMENT showing WEIGHTS of RAILS in various LINES on 31st March, 1909.

Line.	30 lb. Iron.	40 lb. Iron.	40 lb. Steel.	45 lb. Steel.	52 lb. Iron.	52 lb. Steel.	53 lb. Steel.	55 lb. Steel.	56 lb. Iron.	56 lb. Steel.	65 lb. Steel.	70 lb. Iron.	70 lb. Steel.	100 lb. Steel.	Total.
Kawakawa Section—															
Opua-Kawakawa ..	..	0 2	..	..	..	..	6 10	..	0 69	0 38	..	..	..	..	7 39
Whangarei Section—															
Opua Wharf-Hukerenui ..	..	..	..	..	..	..	17 78	..	..	4 46	..	..	..	..	22 44
Kaiti Section—															
Dargaville-Kaiti ..	..	..	..	..	..	..	17 15	..	..	..	..	..	..	..	17 15
North Island Main Line and Branches—															
Auckland-Wellington..	..	..	..	..	0 5	..	149 57	1 68	..	61 66	28 28	..	186 1	..	425 77
Newmarket-Wayby ..	..	..	0 10	..	..	..	37 60	..	..	22 75	..	..	3 47	..	66 10
Penrose-Onehunga ..	..	..	0 2	..	..	..	2 23	..	..	..	..	..	0 26	..	2 59
Frankton-Thames ..	..	..	..	..	..	..	26 20	..	..	18 77	..	..	17 56	..	62 75
Paeroa-Waihi ..	..	..	9 14	..	..	..	..	0 18	..	12 24	..	..	..	..	12 24
Cambridge Branch ..	..	..	0 21	..	..	..	2 49	..	..	..	..	..	..	..	12 1
Morrinsville-Rotorua..	..	..	..	..	..	..	68 35	..	..	..	..	..	0 4	..	68 60
Marton-New Plymouth	..	0 42	2 28	..	0 3	..	31 60	..	..	42 44	..	..	62 38	..	136 65
Waitara Branch ..	..	..	15 47	..	..	..	..	..	..	..	..	..	..	..	4 62
Stratford-Huiroa ..	..	..	..	..	..	..	..	..	..	0 22	..	..	..	..	15 69
Mount Egmont Branch	..	..	..	..	0 21	..	..	..	..	6 2	..	..	..	..	6 2
Aramoho-Wanganui ..	..	..	..	..	9 31	..	..	..	..	1 78	..	..	1 1	..	3 20
Foxton Branch ..	..	0 22	..	..	..	..	9 60	..	..	..	..	..	..	..	19 33
Palmerston-Spit ..	..	2 0	..	..	0 3	..	56 15	..	..	35 67	..	..	19 70	..	113 72
Wellington-Woodville	..	..	..	..	3 7	..	30 0	..	..	17 20	..	..	67 20	..	114 43
Greytown Branch ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3 7
Te Aro Branch ..	..	..	..	..	..	..	1 9	..	..	0 1	..	..	..	..	1 10
Gisborne Section—															
Gisborne-Waikohu ..	..	0 20	..	..	..	..	..	5 24	..	17 62	..	..	..	..	23 26
South Island Main Line and Branches—															
Lyttelton-Bluff ..	..	0 11	..	..	..	..	77 31	..	0 11	29 11	..	..	283 49	1 48	392 1
Addington-Culverden..	..	..	..	..	..	..	36 58	..	5 39	0 12	..	..	18 69	..	67 57
Oxford Branch ..	0 14	0 6	11 52	..	..	..	18 59	..	..	2 74	..	..	..	..	33 45
Eyreton Branch ..	11 61	5 76	0 38	..	..	..	1 76	..	..	..	..	..	..	..	20 11
Waipara-Domett ..	..	..	..	..	..	..	..	..	..	31 46	..	..	..	..	31 46
Southbridge Branch ..	..	1 32	13 42	5 22	1 59	..	23 19	1 0	..	1 20	..	..	..	..	25 39
Little River Branch ..	..	..	..	..	..	..	4 57	4 60	0 53	30 17	..	..	2 36	..	22 48
Springfield Branch ..	..	..	..	..	..	..	11 45	..	..	..	..	..	..	..	42 10
White Cliffs Branch ..	0 1	..	..	..	..	..	..	..	..	..	..	..	..	..	11 46
Rakaia Forks Branch..	..	..	..	..	..	22 20	..	..	..	..	..	..	..	..	22 20
Mount Somers Branch	..	4 8	23 28	..	..	..	..	..	..	..	..	..	..	..	27 36
Albury Branch ..	..	26 34	9 38	..	..	2 2	0 21	..	..	..	..	..	..	..	36 13
Waimate Branch ..	..	0 7	..	..	..	..	2 37	..	..	..	..	..	..	..	4 46
Waimate Gorge Branch	..	..	..	..	8 21	..	..	..	..	..	..	..	..	..	8 21
Duntroon Branch ..	..	14 66	0 12	..	4 34	..	18 9	..	..	..	..	..	..	..	37 41
Oamaru Breakwater Branch	..	0 23	..	..	..	..	0 40	..	..	..	..	..	..	..	0 63
Carried forward ..	11 76	56 29	86 12	5 22	27 24	26 14	652 63	13 10	7 12	338 2	28 28	6 39	663 17	1 48	1,923 76

RETURN NO. 23—continued.

STATEMENT showing WEIGHTS of RAILS in Various LINES on 31st March, 1909—continued.

Line.	30 lb. Iron.	40 lb. Iron.	40 lb. Steel.	45 lb. Steel.	52 lb. Iron.	52 lb. Steel.	53 lb. Steel.	55 lb. Steel.	56 lb. Iron.	56 lb. Steel.	65 lb. Steel.	70 lb. Iron.	70 lb. Steel.	100 lb. Steel.	Total.
Brought forward	M. ch. 11 76	M. ch. 56 29	M. ch. 86 12	M. ch. 5 22	M. ch. 27 24	M. ch. 26 14	M. ch. 652 63	M. ch. 13 10	M. ch. 7 12	M. ch. 338 2	M. ch. 28 28	M. ch. 6 39	M. ch. 663 17	M. ch. 1 48	M. ch. 1,923 76
South Island Main Line and Branches—continued															
Ngapara Branch	..	4 60	0 75	..	..	..	5 69	..	..	3 45	..	..	..	..	15 9
Livingstone Branch	..	11 46	0 29	..	..	..	..	..	..	..	..	..	..	..	11 75
Waikato Branch	7 5	..	0 59	..	0 1	..	..	1 0	..	..	..	..	8 65
Port Chalmers Branch	0 12	..	1 4	0 10	..	..	..	..	..	..	1 26
Walton Park Branch	1 6	..	1 43	..	..	..	..	..	..	..	2 49
Fernhill Branch	1 57	..	..	..	..	..	..	..	..	..	..	..	1 57
Otago Central Railway	65 73	3 0	..	65 58	..	..	..	..	134 51
Outram Branch	..	4 62	1 19	..	..	..	1 22	..	..	1 57	..	..	..	..	9 0
Lawrence Branch	..	0 18	..	..	..	..	1 29	5 38	..	14 76	..	..	..	..	22 1
Catlin's River Branch	0 25	..	19 2	..	..	3 37	..	..	..	..	22 64
Tapanui Branch	..	9 40	6 72	..	..	..	3 10	12 57	..	6 59	..	..	..	..	26 21
Waikaka Branch	0 22	..	12 57
Wyndham Branch	16 62	..	..	..	9 13	..	..	6 71	..	..	..	..	9 35
Seaward Bush Branch	..	29 40	..	..	0 20	..	29 4	..	..	9 55	..	18 11	0 30	..	25 39
Invercargill-Kingston	19 34	..	..	10 18	..	0 2	10 42	..	40 16
Makarawa-Waihoaka	22 29	..	..	..	0 16	..	..	2 5	..	..	0 1	..	24 51
Thornbury-Nightcaps	12 66
Forest Hill Branch	..	12 66	..	..	..	..	0 23	..	..	..	..	..	..	..	10 41
Mararoa Branch	10 18	..	..	..	3 58	..	..	0 72	..	..	..	..	36 41
Waimea Plains Railway	31 71	..	..	..	..	..	..	..	..	..	..
Westland Section—	33 13	..	..	11 28	..	..	6 7	..	50 48
Greymouth-Otira	18 26	..	..	10 24	..	..	2 40	..	31 10
Greymouth-Ruatapu	37 13	..	..	6 53	..	..	..	..	43 66
Stillwater-Cronadun	0 16	..	..	4 61	..	..	0 2	..	4 79
Coal Creek Branch	0 36	..	14 75	..	..	4 69	..	..	9 77	..	30 17
Westport-Mokihinui	..	2 46	2 78	..	1 1	..	19 0	5 15	..	16 75	..	..	..	..	47 55
Nelson-Kiwi	..	2 61	2 63	..	1 24	..	10 25	..	..	16 29	..	..	0 2	..	33 44
Pictou-Seddon
Total	11 76	134 68	159 39	5 22	64 38	26 14	948 58	39 50	7 12	536 14	28 28	24 52	693 0	1 48	2,681 39

RETURN NO. 24.
PARTICULARS of PRIVATE-SIDING TRAFFIC, showing Value of Traffic done during Twelve Months ending 31st March, 1909.

Ref. No.	Papers.	Date of Grant.	Present Holder.	Position.	Nearest Station.	By whom paid for.	Term of Grant.	Amount of Traffic guaranteed per Annum.	Liquidated Damages or Premium.	Value of the Traffic through the Siding during the Year ending 31st March, 1909.		
										In.	Out.	Total.
1040	R. 02/2358 ..	Jan. 1, 1907	Hall and Black ..	M. ch. 6 79	Taumarere ..	Govt. and grantees	5 years* ..	†	£ s. d. ..	£ s. d. 4 5 0	£ s. d. 93 5 6	£ s. d. 97 10 6
KAWAKAWA SECTION.												
939	R. 04/3988 ..	Mar. 1, 1905	Northern Coal Company (Limited)	15 22	Waro	Grantees	5 years* ..	Premium..	457 0 0	27 11 0	5,700 6 9	5,727 17 9
950	R. 00/241 ..	April 1, 1905	Mander and Bradley ..	18 32	Whakapara	"	5 " ..	†	..	21 17 5	2,268 19 6	2,290 16 11
963	R. 05/3060 ..	July 1, 1905	R. P. Gibbons ..	..	Hikurangi	"	5 " ..	Premium..	120 0 0	9 4 1	1,019 19 0	1,029 3 1
1016	R. 02/551 ..	Jan. 1, 1907	Hikurangi Coal Company (Limited)	..	Waro ..	"	5 " ..	†	..	35 18 10	7,266 17 0	7,302 15 10
1037	R. 02/550 ..	Jan. 1, 1907	Hikurangi Coal Company and Mary Belton ..	..	" ..	"	5 " ..	..	..	7 7 2	38 14 4	46 1 6
1062	R. 06/3579 ..	Oct. 26, 1907	A. L. Stokes ..	18 15	Whakapara	Govt. and grantees	5 " ..	..	..	3 2 0	497 10 8	500 12 8
1065	R. 02/532 ..	Jan. 1, 1908	Kauri Timber Company (Limited)	..	Mangabahuru ..	Govt. ..	5 " ..	†	..	..	326 17 7	326 17 7
WHANGAREI SECTION.												
1011	R. 06/2737 ..	Oct. 1, 1906	H. P. Clear ..	3 2	Flaxmill	Grantees	5 years* ..	Premium..	85 0 0	Nil.	Nil.	Nil.
1084	R. 00/2111 ..	May 1, 1908	James Trounson ..	..	Ahikiwi	"	1 " ..	..	..	Nil.	123 1 3	123 1 3
1031	R. 02/1438 ..	Jan. 1, 1907	Mitchelson Timber Company and James Trounson	16 15	Kaihu Booms ..	Govt. ..	5 " ..	..	..	3 2 6	1,052 5 7	1,055 8 1
KAIHU SECTION.												
956	R. 05/901 ..	July 1, 1905	New Zealand Shipping Company (Limited)	..	Gisborne	Grantees	10 years* ..	Premium..	250 0 0	138 10 4	8 2 4	146 12 8
1099	R. 07/4316 ..	Nov. 1, 1908	Gisborne Borough Council ..	..	" ..	"	5 " ..	"	150 0 0	Nil.	Nil.	Nil.
GISBORNE SECTION.												
NORTH ISLAND MAIN LINES AND BRANCHES.												
720	R. 00/107 ..	Jan. 1, 1900	Kemphorne, Frosser, and Co.'s New Zealand Drug Company (Limited)	7 48	Westfield	Grantees	10 years* ..	Premium..	160 0 0	2,104 10 5	1,934 2 10	4,038 13 3
721	R. 99/1601 ..	Jan. 1, 1900	R. and W. Hellaby (Limited) ..	7 52	"	Govt. ..	10 " ..	† Alter ns..	120 0 0	60 15 4	43 7 10	104 3 2
744	R. 00/668 ..	July 1, 1900	New Zealand Loan and Mercantile Agency Company (Limited)	1 5	Hamilton	Grantees	10 " ..	Premium..	175 0 0	98 14 3	115 5 9	214 0 0
855	R. 03/600 ..	July 1, 1908	W. and G. Winstone ..	..	Auckland	"	1 " ..	"	32 0 0	2,361 4 0	43 5 1	2,404 9 1
866	R. 03/3515 ..	Oct. 1, 1903	Assets Realisation Board	..	Morrinsville	"	10 " ..	†	Rental, £50	3 16 2	..	3 16 2
884	R. 03/1660 ..	April 1, 1904	Taupo Totara Timber Company (Limited)	..	Putaruru	"	5 " ..	Premium..	330 0 0	298 7 4	9,646 5 7	9,944 12 11
885	R. 04/956 ..	May 11, 1904	A. and G. Price	..	Thames	Govt. ..	Indefinite	..	..	..	..	..
887	R. 04/945 ..	June 1, 1904	New Zealand Brick, Tile, and Pottery Company	..	New Lynn	Grantees	5 years* ..	Premium..	98 0 0	636 8 4	1,071 10 3	1,707 18 7
898	R. 04/1751 ..	Aug. 1, 1904	Frank Coulthard	..	Helensville South	"	5 " ..	"	262 0 0	137 7 11	133 7 6	270 15 5
900	R. 04/2378 ..	June 1, 1904	Auckland Veneer and Timber Company (Limited)	..	Onehunga	"	5 " ..	†	Rental, £25	3,998 2 0	165 5 3	4,163 7 3

909	R. 98/3564 ..	Aug. 1, 1904	Auckland Farmers' Freezing Company (Limited)	..	Auckland	..	Govt. and grantees	5	"	"	50 0 0	531 4 3	1,141 4 2	1,672 8 5
912	R. 99/1973 ..	July 1, 1904	Firth Fumice Company (Limited)	58 11	Ohinewai	..	Grantees	10	"	"	Rental, £50	281 17 8	236 3 7	518 1 3
917	R. 99/3007 ..	June 1, 1904	Taupiri Coal-mines (Limited)	..	Huntly	..	Govt. ..	5	"	"	..	125 5 7	24,002 9 4	24,127 14 11
918	R. 00/1840 ..	June 1, 1904	Prisons Department	..	Mount Eden	..	Govt. ..	5	"	"	..	37 9 2	343 3 8	380 12 10
919	R. 04/2222 ..	Oct. 1, 1904	Auckland Farmers' Freezing Company (Limited)	6 64	Westfield	..	Grantees	10	"	"	Premium..	3,519 17 9	141 6 0	3,661 3 9
926	R. 99/1294 ..	Dec. 1, 1904	J. J. Craig (Limited)	..	Auckland	..	"	5	"	"	Rental, £50	4,240 9 3	79 10 3	4,319 19 6
936	R. 05/867 ..	April 1, 1905	Shaw, Savill, and Albion Company	..	"	..	"	5	"	"	Rental, £50	604 5 2	3 5 2	607 10 4
947	R. 04/3883 ..	Mar. 1, 1905	Drury Coal Company (Limited)	..	Drury ..	..	"	5	"	"	Rental, £50	89 7 0	159 1 0	248 8 0
959	R. 04/1368 ..	Oct. 1, 1905	Leyland-O'Brien Timber Company (Limited)	..	Auckland	..	"	5	"	"	40 0 0	1,635 5 1	5 9 6	1,640 14 7
967	R. 02/2630 ..	Oct. 1, 1908	J. Wilson and Co.	124 39	Te Kuiti	..	Govt. ..	1	"	"	Rental, £50	103 10 5	971 8 2	1,074 18 7
977	R. 02/1392 ..	Mar. 1, 1906	Bartholomew Land and Timber Company (Limited)	43 20	Ngatira	..	Grantees	10	"	"	Rental, £12	144 5 11	1,791 12 9	1,935 18 8
989	R. 03/4035 ..	Nov. 9, 1905	Waihi Gold-mining Company (Limited)	..	Waikino	..	Govt. ..	10	"	"	Rental, £50	12,798 2 3	55 1 2	12,853 3 5
990	R. 03/4035 ..	Feb. 1, 1906	N.Z. Crown Mines Company (Limited)	..	Karangahake	..	"	10	"	"	..	808 14 7	..	808 14 7
995	R. 06/842 ..	June 1, 1906	Isaac Coates	..	Huntly	..	Grantee	5	"	"	171 10 0	6 1 6	521 1 3	527 2 9
1009	R. 04/3856 ..	July 1, 1906	Wm. Lovett	..	Te Kuiti	..	"	5	"	"	290 0 0	..	426 19 0	426 19 0
1010	R. 06/3300 ..	Nov. 1, 1906	Auckland City Council	..	Westfield	..	Grantees	10	"	"	426 0 0	45 5 8	103 14 10	149 0 6
1020	R. 00/2203 ..	Nov. 1, 1906	Taupiri South Coal Company (Limited)	..	Huntly	..	"	5	"	"	2 0 0	..	118 12 7	118 12 7
1021	R. 06/2165 ..	Jan. 1, 1907	Taumarunui Totara Company	..	Frankton Junction	..	"	10	"	"	93 0 0	246 4 2	39 2 5	285 6 7
1035	R. 07/1584 ..	May 1, 1907	Selwyn Timber Company	..	Putaruru	..	"	5	"	"	Rental, £25	27 4 8	1,008 1 6	1,035 6 2
1063	R. 02/670 ..	Oct. 1, 1907	Union Collieries (Limited)	44 33	Mercer	..	"	5	"	"	232 10 0	3 8 2	4,060 18 9	4,064 6 11
1074	R. 00/613 ..	Nov. 1, 1907	Avondale Brick and Pottery Company (Limited)	6 29	New Lynn	..	"	5	"	"	116 9 4	803 15 9	1,570 16 5	2,374 12 2
1079	R. 03/2232 ..	May 1, 1908	Taupiri Coal-mines Company (Limited)	..	Huntly	..	"	5	"	"	..	49 3 2	20,252 1 3	20,301 4 5
1085	R. 06/3864 ..	Aug. 1, 1908	Dalgely and Co. (Limited)	..	Auckland	..	"	10	"	"	156 10 0	140 4 3	14 7 2	154 11 5
1106	R. 08/1608 ..	Feb. 1, 1909	Morningside Quarry (Limited)	..	Morningside	..	"	5	"	"	Rental, £50	Nil.	Nil.	Nil.
1111	R. 08/3737 ..	Jan. 1, 1909	Taringamutu Totara Sawmilling Company (Limited)	..	Taringamutu	..	"	5	"	"	479 10 0	Nil.	Nil.	Nil.
1113	R. 03/4153 ..	Jan. 1, 1909	Gardner Bros. and Parker	..	New Lynn	..	"	5	"	"	Repairs £14 13/-	598 6 6	1,594 12 7	2,192 19 1
1114	R. 00/990 ..	Feb. 1, 1909	Union Oil, Soap, and Candle Company (Limited)	..	Westfield	..	"	1	"	"	4 17 6	801 7 9	893 9 7	1,694 17 4
24	R. 89/2248 ..	1875	Napier Gas Company	2 30	Napier	..	Govt. ..	Undefined	"	"	Rental, £25	695 11 5	476 6 6	1,171 17 11
221	R. 90/2374 ..	Dec. 13, 1880	Gear Meat Preserving and Freezing Company (Limited)	6 37	Petone	..	Grantees	"	"	"	117 19 11	1,544 10 4	4,884 7 0	6,428 17 4
656	R. 98/2734 ..	Feb. 1, 1899	C. N. Clausen	87 39	Palmerston North	..	"	10 years*	"	"	Rental, £25	1,818 15 7	115 14 2	1,934 9 9
705	R. 97/2271 ..	Aug. 1, 1899	Bartholomew Bros.	..	Feilding	..	Govt. ..	10	"	"	Repairs, £25	1,227 2 4	28 13 1	1,255 15 5
725	R. 99/854 ..	Jan. 1, 1900	Waitara Freezing and Cool-storage Company (Limited)	246 53	Waitara	..	Grantees	10	"	"	80 10 0	2,338 13 8	..	2,338 13 8

*Three months' notice. †Siding originally laid under old agreement.

RETURN NO. 24—continued.
PARTICULARS of PRIVATE-SIDING TRAFFIC, showing Value of Traffic done during Twelve Months ending 31st March, 1909—continued.

H.A. O.C. No.	Papers.	Date of Grant.	Present Holder.	Position.	Nearest Station.	By whom paid for.	Term of Grant.	Amount of Traffic guaranteed per Annum.	Liquidated Damages or Premium.	Value of the Traffic through the Siding during the Year ending 31st March, 1909.			
										In.	Out.	£	s. d.
735	R. 00/1180 ..	Jan. 1, 1900	Williams and Kettle (Limited)	M. ch. 113 55	Port Aburiri	Grantees	10 years* ..	Premium..	£ s. d. 125 0 0	£ s. d. 2,101 10 0	£ s. d. 140 11 6	£	s. d. 2,242 1 6
736	R. 00/1192 ..	May 1, 1900	R. Holt	99 72	Hastings	"	10 " * ..	†	Rental, £25	1,085 6 10	56 2 8	1,141 9 6	
758	R. 98/3937 ..	Oct. 1, 1900	J. Garnett	99 71	"	"	10 " * ..	†	Repairs, £1 5s. Rental, £25	418 16 0	0 13 4	419 19 4	
759	R. 99/2633 ..	April 1, 1901	Henry Brown and Co.	235 43	Inglewood	"	10 " * ..	Premium..	200 0 0	263 10 1	148 17 11	411 8 0	
760	R. 01/299 ..	April 1, 1901	Nelson Bros. (Limited)	96 17	Woodville	"	10 " * ..	†	Repairs, £42 Rental, £25	1,573 13 1	1,558 7 7	3,132 0 8	
788	R. 01/886 ..	Nov. 1, 1901	West Coast Refrigerating Company (Limited)	..	Patea	"	10 " * ..	Premium..	200 0 0	2,064 12 4	675 11 6	2,740 3 10	
792	R. 02/384 ..	Jan. 1, 1902	Nelson Bros. (Limited)	68 3	Waipukurau	Govt. ..	10 " * ..	†	Rental, £25	Nil.	Nil.	Nil.	
830	R. 02/2178 ..	Sept. 1, 1902	Waverley Co-operative Dairy Factory Company (Limited)	..	Aramoho	Grantees	10 " * ..	Premium..	192 0 0	260 16 7	195 3 9	456 0 4	
831	R. 92/1948 ..	Sept. 1, 1902	Williams and Kettle	..	Hastings	"	10 " * ..	†	Rental, £25	381 9 7	162 0 3	551 1 10	
857	R. 99/2453 ..	Oct. 1, 1903	(New Plymouth Sash and Door Factory and Timber Company (Limited))	..	Eltham	"	10 " * ..	†	Rental, £25	189 15 4	..	189 15 4	
858	R. 99/2453 ..	Oct. 1, 1903	(Egmont Box Company (Limited))	..	Tomoana	"	10 " * ..	†	Rental, £25	3,427 16 6	451 13 11	3,879 10 5	
868	R. 96/3927 ..	Nov. 1, 1903	Nelson Bros. (Limited)	..	Palmerston North	"	10 " * ..	†	Rental, £25	2,286 10 10	2,662 16 2	4,949 7 0	
882	R. 03/4089 ..	Mar. 1, 1904	(Union Timber, Sash, and Door Company (Limited))	88 36	Palmerston North	"	10 " * ..	Premium..	121 0 0	1,171 12 0	22 4 1	1,193 16 1	
883	R. 04/291 ..	Mar. 1, 1904	William Cook ..	88 36	"	"	10 " * ..	"	Rental, £25	468 14 5	127 1 3	595 15 8	
890	R. 99/1984 ..	May 1, 1904	Wanganui Sash and Door Factory and Timber Company (Limited)	2 52	Wanganui	Govt. ..	5 " * ..	Repairs ..	Rental, £25	3,848 16 10	122 16 4	3,971 13 2	
895	R. 01/2230 ..	May 1, 1904	Henry Carlson ..	..	Pukehou	Grantees	5 " * ..	Premium..	190 0 0	17 11 11	558 7 8	575 19 7	
896	R. 04/955 ..	July 1, 1904	McMurray and Co. (Limited)	..	Palmerston North	"	10 " * ..	"	90 0 0	302 19 10	24 16 0	327 15 10	
907	R. 98/3250 ..	May 1, 1904	Lands and Survey Department	..	Piripiri	"	5 " * ..	†	Rental, £25	18 8 8	391 1 8	409 10 4	
922	R. 04/1516 ..	Nov. 1, 1904	Thomas Borthwick and Sons	..	Pakipaki	"	10 " * ..	Premium..	1,116 0 0	4,821 4 8	3,207 12 5	8,028 17 1	
924	R. 03/4058 ..	Nov. 1, 1904	Manawatu Racing Club	..	Awapuni	"	10 " * ..	"	Rental, £25	..	..	..
927	R. 01/1707 ..	Oct. 1, 1904	Manawatu County Council	..	Himatangi	"	5 " * ..	Repairs ..	487 0 0	..	..	Nil.	
930	R. 04/3525 ..	Jan. 1, 1905	Rangitikei County Council	27 35	Ohingaiti	"	5 " * ..	Premium..	203 5 0	177 19 6	177 19 6	177 19 6	
932	R. 04/79 ..	Nov. 1, 1904	B. L. Knight ..	40 20	Utiku	"	5 " * ..	"	350 0 0	40 5 5	2,158 9 4	2,198 14 9	
938	R. 04/2133 ..	Nov. 18, 1904	The Manawatu Timber Company (Limited)	37 69	"	"	10 " * ..	"	204 4 6	27 11 11	2,548 2 8	2,575 14 7	
943	R. 99/2616 ..	Mar. 1, 1905	Gannan and Co.	..	Piripiri ..	"	5 " * ..	†	..	9 9 6	42 15 0	52 4 6	
945	R. 04/1256 ..	Oct. 28, 1904	Bosher Bros. and Baker ..	42 68	Taihape	"	5 " * ..	Premium..	311 14 6	3 19 6	3,384 14 5	3,388 13 11	
954	R. 04/1002 ..	Mar. 1, 1905	The New Plymouth Sash and Door Factory and Timber Company (Limited)	7 8	Toko ..	"	5 " * ..	"	212 10 0	..	358 18 4	358 18 4	
960	R. 00/2361 ..	Aug. 1, 1905	William Booth and Co. ..	53 23	Carterton	Govt. ..	5 " * ..	†	..	5 11 8	225 15 10	231 7 6	
965	R. 05/2546 ..	Oct. 1, 1905	H. L. Tottenham	..	Hastings	Grantee	10 " * ..	Premium..	170 0 0	Nil.	Nil.	Nil.	

Rental, £25

972	R. 00/1143 ..	Nov. 15, 1905	Taranaki Freezing-works Company (Limited)	9 40	Moturoa	..	..	10	"	"	12 5 0	2,021 14 1	1,364 0 8	3,385 14 9
973	R. 96/114 ..	Jan. 1, 1906	Robert Holt	111 79	Napier	..	Govt. ..	10	"	"	Rental, £25	2,626 13 9	..	2,626 13 9
978	R. 00/1403 ..	Jan. 1, 1906	G. A. Gamman and Co. and Lizzie Rathbone	40 73	Te Ohu	..	Grantees	5	"	"	Rental, £50	23 19 7	951 11 4	975 10 11
993	R. 06/536 ..	May 1, 1906	Perham, Larsen, and Co.	37 69	Utiku ..	..	Premium..	5	"	"	195 0 0	9 3 6	1,884 4 10	1,893 8 4
997	R. 05/3567 ..	July 1, 1906	H. D. Bennett ..	46 79	Mataroa	..	Grantee	5	"	"	692 0 0	11 12 5	3,820 3 5	3,831 15 10
1002	R. 03/951 ..	June 1, 1906	Wellington Meat Export Company (Limited)	..	Ngahauranga	..	Grantees	10	"	"	Rental, £25	840 7 6	3,122 5 10	3,962 13 4
1003	R. 01/182 ..	June 1, 1906	Silverstream Brick and Tile Company	..	Silverstream	..	Premium..	5	"	"	7 0 0	469 15 4	1,405 11 4	1,875 6 8
1006	R. 02/1544 ..	Aug. 1, 1906	Gamman and Co.	42 65	Makotuku	..	"	5	"	"	13 3 5	55 3 10	1,159 9 3	1,214 13 1
1008	R. 06/1112 ..	June 28, 1906	Wellington Harbour Board	..	Te Aro ..	..	"	10	"	"	85 0 0	186 15 3	..	186 15 3
1012	R. 01/2827 ..	Oct. 1, 1906	Napier Gas Company (Limited)	..	Hastings	..	"	5	"	"	Rental, £25	702 13 2	3 14 0	706 7 2
1014	R. 01/2396 ..	Oct. 1, 1906	Henry Brown and Co. ..	..	Morley Street	..	Premium..	10	"	"	156 0 0	447 7 1	48 14 6	496 1 7
1018	R. 06/2769 ..	Feb. 1, 1907	Department of Mines ..	..	Wanganui	..	"	10	"	"	Rental, £25	98 1 0	218 15 10	316 16 10
1022	R. 06/3785 ..	Jan. 1, 1907	R. Wilson and Co.	..	Marton	..	"	10	"	"	Rental, £25	82 5 1	370 18 3	453 3 4
1034	R. 02/3212 ..	Mar. 26, 1907	Wellington Meat Export Company	..	Waingawa	..	"	10	"	"	Rental, £25	1 4 9	3,047 7 6	3,048 12 3
1041	R. 07/2501 ..	Aug. 1, 1907	Belmont Quarry Company	12 47	Belmont	..	"	5	"	"	Rental, £25	14 2 9	39 7 6	53 10 3
1042	R. 07/895 ..	July 1, 1907	Gosse, Bolton, and Swan..	11 28	"	..	"	5	"	"	322 0 0	20 19 11	695 3 10	716 3 9
1046	R. 07/1141 ..	Oct. 1 1907	New Zealand Shipping Company (Limited)	..	Foxton	..	"	10	"	"	540 0 0	331 18 9	16 0 6	347 19 3
1048	R. 01/1659 ..	Aug. 1, 1907	Totara Sawmill Company	..	Tamaki	..	"	5	"	"	Rental, £25	1 19 0	1,269 12 0	1,271 11 0
1054	R. 97/4085 ..	Nov. 1, 1907	Murray, Roberts, and Co.	..	Port Ahuriri	..	Govt. ..	10	"	"	110 0 0	978 11 9	129 10 3	1,108 2 0
1055	R. 02/2734 ..	Nov. 1, 1907	G. Syme	..	Ngaere ..	..	"	5	"	"	Rental, £25	..	583 18 9	583 18 9
1061	R. 07/2868 ..	Jan. 1, 1908	Rangataua Timber Company	..	Rangataua	..	"	5	"	"	575 0 0	4 1 9	74 2 9	78 4 6
1069	R. 97/3534 ..	Mar. 1, 1908	Levin and Co. ..	..	Masterton	..	Govt. and grantees	10	"	"	Rental, £25	324 17 2	3,094 7 7	3,419 4 9
1075	R. 00/2214 ..	April 1, 1908	Kendrick Bros. ..	..	Aramoho	..	Grantees	5	"	"	..	30 1 9	316 19 7	347 1 4
1076	R. 00/2262 ..	Feb. 1, 1908	Mrs. E. Stratford	50 68	Matarawa	..	Premium..	1	"	"	Rental, £50	0 6 6	82 8 9	82 15 3
1077	R. 02/2937 ..	May 1, 1908	Wairapa Farmers' Co-operative Association	..	Masterton	..	"	10	"	"	152 0 0	1 13 0	35 7 9	37 0 9
1078	R. 02/1854 ..	April 1, 1908	Tiratu Sawmilling Company	..	Mangatera	..	"	5	"	"	Rental, £25	19 12 0	1,669 15 0	1,689 7 0
1081	R. 00/2784 ..	June 1, 1908	Mauriceville Lime Company	..	Mauriceville	..	Premium..	5	"	"	237 5 6	79 0 3	328 4 3	407 4 6
1082	R. 03/2618 ..	Sept. 1, 1908	A. Quinlan ..	93 36	Hukarui	..	"	5	"	"	..	5 7 10	162 18 3	168 6 1
1087	R. 98/3331 ..	Oct. 1, 1908	W. G. Bassett ..	2 11	Wanganui	..	"	10	"	"	Rental, £25	3,453 1 6	85 17 6	3,538 19 0
1093	R. 03/3688 ..	Nov. 1, 1908	Pitcaithly and Co.	..	Belmont	..	"	10	"	"	Repairs, £7	81 2 11	1,528 14 1	1,609 17 0
1094	R. 98/3766 ..	Jan. 1, 1909	Dalgely and Co. ..	..	Port Ahuriri	..	"	5	"	"	Rental, £25	589 12 6	31 4 11	620 17 5
1095	R. 06/2689 ..	Dec. 1, 1908	Gardner and Sons	..	Turangaarere	..	Premium..	10	"	"	1,040 0 0	1 17 3	190 8 2	192 5 5
1096	R. 08/3485 ..	Jan. 1, 1909	W. Booth and Co.	250 48	"	..	"	5	"	"	473 0 0	114 13 2	..	114 13 2
1097	R. 03/3251 ..	Jan. 1, 1909	G. Bartholomew and Co.	247 10	Matamau	..	"	5	"	"	..	34 11 11	1,237 16 11	1,272 8 10
1100	R. 08/3724 ..	Jan. 1, 1909	Geo. Syme	..	Waitangi	..	Premium..	5	"	"	306 0 0	368 4 0	10 10 6	378 14 6
1101	R. 03/262 ..	Jan. 1, 1909	Quinn Bros.	..	Turangaarere	..	"	5	"	"	440 0 0	149 17 2	..	149 17 2
1103	R. 05/3440 ..	Feb. 1, 1909	N. King	..	New Plymouth	..	"	10	"	"	Rental, £25	267 12 6	149 1 4	416 13 10
1109	R. 01/1877 ..	Jan. 1, 1908	G. H. Stubbs ..	..	Waitara	..	Govt. ..	5	"	"	Rental, £25	758 1 6	1,298 5 11	2,056 7 5
1110	R. 08/187 ..	Jan. 1, 1909	Masterton Borough Council	..	Masterton	..	Grantees	5	"	"	470 0 0	271 12 9	..	271 12 9

* Three months' notice. † Siding originally laid under old agreement.

RETURN NO. 24—continued.
PARTICULARS of PRIVATE-SIDING TRAFFIC, showing Value of Traffic done during Twelve Months ending 31st March, 1909—continued.

Hd. Office Reg. No.	Papers.	Date of Grant.	Present Holder.	Position.	Nearest Station.	By whom paid for.	Term of Grant.	Amount of Traffic guaranteed per Annum.	Liquidated Damages or Premium.	Value of the Traffic through the Siding during the Year ending 31st March, 1909.				
										In.	Out.	Total.		
SOUTH ISLAND MAIN LINES AND BRANCHES.														
..	..	..	J. Mill and Co. ..	M. ch.	Oamaru	Govt. ..	Indefinite	..	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
3	R. 96/1630 ..	Dec. 28, 1870	Public Works Department	..	Dunedin	..	For ever ..	..	..	510 19 2	643 10 8	1,154 9 10	865 12 1	
12	R. 82/2186 ..	June 2, 1875	Richard Allen ..	1 17	Riccarton	Grantee ..	"	..	..	63 10 5	802 1 8	2,935 3 10	450 0 0	
			Bank of New South Wales, by White and Co.)	(Used	Leeston	Govt. . .	"	..	..	1,242 17 10	1,692 6 0			
13	R. 98/4310 ..	Dec. 18, 1874	Oamaru Harbour Board ..	157 77	Oamaru	..	Undefined	..	..	450 0 0	..			
20	R. 96/1984 ..	Dec. 11, 1875	Richard Evans ..	1 52	Wilson's Siding ..	Grantee ..	For ever ..	..	..	3,424 9 1	2,327 15 2	5,752 4 3		
32	R. 99/3100 ..	April 7, 1876	D. C. Turnbull and Co. . .	105 54	Timaru	Govt. . .	"	..	..	414 8 9	517 8 10	931 17 7		
33	R. 00/945 ..	April 22, 1876	J. Deans ..	8 75	Glen Tunnel	..	"	..	..	606 0 5	368 8 0	974 8 5		
37	R. 02/641 ..	July 18, 1876	Clark Bros.	166 27	Maheno	..	Undefined	..	..	132 7 4	2,647 13 0	2,780 0 4		
120	R. 98/4310 ..	Jan. 23, 1878	Oamaru Harbour Board ..	157 65	Oamaru (1st sidg.)	..	Indefinite	300 0 0	50 0 0	112 11 11	783 14 5	896 6 4		
178	R. 89/2248 ..	..	Mosgiel Woollen-factory Company	157 65	" (2nd "	..	Indefinite	..	..	1,157 15 3	1,183 11 9	2,341 7 0		
258	R. 00/473 ..	Jan. 10, 1882	Wigram Bros.	0 73	Mosgiel Township	..	For ever ..	..	..	270 9 5	63 5 7	333 15 0		
544	R. 02/3668 ..	Nov. 1, 1905	T. Teschemaker ..	10 71	South Malvern ..	..	Indefinite	..	..	..	116 2 11	116 2 11		
556	R. 98/2669 ..	Sept. 1, 1898	J. H. Lambert ..	165 26	Teschemaker's ..	..	10 years*	..	..	Nil.	Nil.	Nil.		
658	R. 98/3247 ..	April 1, 1899	Friedlander Bros. (Limited)	237 2	Kensington	Grantees ..	10 " ..	..	Rental, £25	689 3 0	689 3 0	689 3 0		
662	R. 99/1727 ..	May 1, 1899	Wm. Goss ..	16 40	Lyndhurst	Govt. . .	10 " ..	..	Rental, £25	644 15 7	29 11 5	674 7 0		
663	R. 99/1738 ..	May 1, 1899	Canterbury (N.Z.) Seed Company (Limited)	6 62	Christchurch	..	10 " ..	..	Repairs, £6	569 14 3	402 4 11	971 19 2		
665	R. 99/1728 ..	May 1, 1899	Dalgaty and Co. (Limited)	2 4	Heathcote	..	10 " ..	..	Rental, £25	2,147 8 2	882 10 8	3,029 18 10		
666	R. 99/1832 ..	May 1, 1899	Belford Mills Company ..	6 45	Christchurch	..	10 " ..	..	Rental, £50	411 14 2	237 9 11	649 4 1		
668	R. 99/1922 ..	May 1, 1899	Friedlander Bros. (Limited)	106 8	Timaru	..	10 " ..	..	Rental, £50	36 8 9	1,564 5 10	1,600 14 7		
669	R. 99/1936 ..	May 1, 1899	Friedlander Bros. (Limited)	60 68	Tinwald	..	10 " ..	..	Rental, £25	529 17 7	(Included in No. 686.)	1,095 4 8		
670	R. 99/1934 ..	May 1, 1899	Fleming and Henderson ..	58 73	Ashburton	..	10 " ..	..	Repairs, £6	1,428 14 4	142 16 4	1,571 10 8		
671	R. 99/1935 ..	May 1, 1899	J. B. Hobart ..	335 5	Gore	..	10 " ..	..	Rental, £25	2,173 5 2	368 5 9	2,541 10 11		
673	R. 99/2066 ..	June 1, 1899	National Mortgage and Agency Company of New Zealand (Limited)	6 19	Christchurch	Govt. and grantees	10 " ..	..	Rental, £50	1,149 14 2	519 8 5	1,669 2 7		
674	R. 99/2065 ..	Aug. 1, 1899	W. Nicholls ..	236 32	Dunedin	..	10 " ..	..	Rental, £25	613 13 3	379 18 11	993 12 2		
675	R. 99/2092 ..	May 1, 1899	National Mortgage and Agency Company of New Zealand (Limited)	7 2	Belfast	Govt. . .	10 " ..	..	Rental, £50	1,071 3 9	359 4 7	1,430 8 4		
677	R. 99/2174 ..	May 1, 1899	Fleming and Co. (Limited)	374 56	Invercargill	..	10 " ..	..	49 0 0	1,639 15 5	1,501 15 10	3,141 11 3		
680	R. 99/1120 ..	July 1, 1899	Wright, Stephenson, and Co. .	374 5	Elles Road	..	10 " ..	Premium..	Rental, £50	3,883 10 7	988 17 10	4,872 8 5		
683	R. 97/2821 ..	Aug. 1, 1899	Dalgaty and Co. (Limited)	375 11	Invercargill	Grantees	10 " ..	..	Rental, £50	535 13 10	1,035 14 8	1,571 8 6		
686	R. 99/2432 ..	May 1, 1899	Friedlander Bros. (Limited)	236 21	Dunedin	..	10 " ..	..	Rental, £25	9,087 10 0	4,414 12 4	13,502 2 4		
691	R. 99/2406 ..	Aug. 1, 1899	Christchurch Meat Company (Limited)	58 72	Ashburton	Govt. . .	10 " ..	..	Rental, £25	55 16 3	1,272 19 2	1,328 15 5		
692	R. 99/2427 ..	May 1, 1899	Canterbury Roller Flour-mills Coy.	13 13	Islington (1st sidg.)	Govt. and grantees	10 " ..	..	Rental, £25					
				58 3	" (2nd "	Grantees	10 " ..	..					
					Ashburton	..		..			

695	R. 99/1968	Aug. 1, 1899	W. Scott and Co.	25 39	Southbridge	Govt. ..	10	* ..	†	Rental, £25	452 15 0	613 6 0	1,066 1 0
698	R. 99/2537	June ..	Christchurch Meat Company (Limited)	155 23	Eveline	Grantees	10	* ..	†	Rental, £50	699 5 1	2,372 9 10	3,071 14 11
699	R. 99/2042	Oct. 1, 1899	New Zealand Shipping Company (Limited)	391 47	Bluff	"	10	* ..	Premium..	67 11 0	1,149 10 3	243 11 2	1,393 1 5
700	R. 99/2653	May 1, 1899	W. White and Co.	7 46	Addington	Govt. ..	10	* ..	†	Rental, £50	1,680 3 4	304 14 9	1,984 18 0
702	R. 99/1967	June ..	Crown Milling Company (Limited)	236 26	Dunedin	"	10	* ..	†	Rental, £50	1,068 1 4	98 3 4	1,166 4 8
709	R. 99/2416	Nov. 1, 1899	N.Z. Loan and Mercantile Agency Company (Limited)	391 48	Bluff	"	10	* ..	†	Repairs, £3	829 17 9	721 4 4	1,551 2 1
715	R. 99/1719	Aug. 1, 1899	Bowron Bros. ..	3 73	Woolston	Grantees	10	* ..	Premium..	170 0 0	1,519 18 2	413 1 10	1,993 0 0
716	R. 99/2905	Oct. 1, 1899	Milburn Lime and Cement Company (Limited)	235 25	Dunedin	"	10	* ..	†	Rental, £25	1,809 2 4	963 5 11	2,772 8 3
722	R. 00/141	Jan. 1, 1900	H. Harraway ..	0 14	Burnside	Govt. and grantees	10	* ..	†	Rental, £25	755 9 3	301 8 1	1,056 17 4
729	R. 00/991	April ..	J. Montgomery and Co. ..	7 59	Addington	Grantees	10	* ..	†	Rental, £25	767 17 10	467 14 3	1,235 12 1
731	R. 99/3088	May 1, 1900	Wright, Stephenson, and Co.	26 50	Balfour	"	10	* ..	Premium..	79 14 0	241 7 11	1,324 13 3	1,566 1 2
732	R. 00/1193	May 1, 1900	J. and T. Meek	158 18	Oamaru	Govt. ..	10	* ..	†	Rental, £25	725 14 8	540 16 7	1,266 11 3
739	R. 99/367	Feb. 1, 1900	N.Z. Farmers' Co-operative Association of Canterbury (Limited)	59 4	Ashburton	Grantees	10	* ..	†	Rental, £50	1,207 14 3	1,012 13 2	2,220 7 5
740	R. 99/2357	May 1, 1900	J. Craig and Co.	157 45	Oamaru	Govt. ..	10	* ..	†	Rental, £50	541 4 9	179 13 5	720 18 2
749	R. 00/2042	Oct. 1, 1900	National Mortgage and Agency Coy.	58 76	Ashburton	Grantees	10	* ..	†	Rental, £25	408 0 9	617 3 9	1,025 4 6
751	R. 00/1147	Aug. 1, 1900	Christchurch Gas, Coal, and Coke Company (Limited)	6 1	Christchurch	Govt. and grantees	10	* ..	†	Rental, £50	3,459 18 4	178 19 2	3,638 17 6
754	R. 00/694	Oct. 1, 1900	Timaru Harbour Board (National Mortgage and Agency Company, Ltd., Mill and Co., Shaw, Savill, and Albion Company, and Westland-Timaru Timber and Coal Company, Ltd., tenants, Westport Coal Co., Mason, Struthers, & Co., Briscoe & Co.)	105 74	Timaru	Grantees	10	* ..	Premium..	95 0 0	1,439 4 11	1,010 13 7	2,449 18 6
757	R. 00/1040	Dec. 1, 1900	Otago Farmers' Co-operative Association of New Zealand (Ltd.)	236 35	Dunedin	"	10	* ..	Premium	550 0 0	7,556 11 0	1,492 15 8	9,049 6 8
774	R. 01/1887	Sept. 1, 1901	Wright, Stephenson, and Co. ..	7 57	"	"	10	* ..	†	Rental, £25	587 16 4	519 6 5	1,107 2 3
775	R. 01/1661	July 1, 1901	National Mortgage and Agency Company of N.Z. (Limited)	239 24	Cattle-yards	"	10	* ..	†	Rental, £25	1,723 10 9	4,829 17 2	6,553 7 11
776	R. 01/1660	Aug. 1, 1901	Kempthorne, Prosser, and Co.'s N.Z. Drug Company (Limited)	16 69	Southbrook	Govt. ..	10	* ..	†	Rental, £25	340 15 9	588 7 10	929 3 7
779	R. 03/2223	Sept. 14, 1901	Federal Steam Navigation Company (Limited). (Birt and Co. may also use siding)	390 12	Ocean Beach	Grantees	10	* ..	†	Rental, £25	3,237 12 0	1,028 11 0	4,266 3 0
782	R. 95/1853	Oct. 1, 1901	N.Z. Provision and Produce Coy. ..	..	Belfast	"	10	* ..	†	Rental, £25	654 16 0	384 5 7	1,089 1 7
784	R. 01/2438	Oct. 1, 1901	Wood Bros. (Limited) ..	..	Addington	"	10	* ..	†	Rental, £25	1,387 1 2	1,598 9 4	2,985 10 6
791	R. 01/2857	Dec. 1, 1901	D. H. Brown and Son ..	7 29	"	Govt. and grantees	10	* ..	†	Rental, £25	1,578 3 5	784 10 8	2,362 14 1
795	R. 00/1690	Jan. 1, 1902	Christchurch Meat Company (Ltd.)	239 27	Cattle-yards	Grantees	10	* ..	†	Rental, £25	2,888 14 2	1,747 0 5	4,635 14 7
809	R. 99/2224	Feb. 1, 1902	Canterbury Farmers' Co-operative Association (Limited)	..	Timaru	"	10	* ..	†	Rental, £50	1,962 19 7	1,146 2 7	3,109 2 2
815	R. 02/1454	Feb. 1, 1902	Canterbury Farmers' Co-operative Association (Limited)	..	Studholme	"	10	* ..	†	Rental, £25	274 7 4	841 15 8	1,116 3 0

* Three months' notice. † Siding originally laid under old agreement.

RETURN NO. 24—continued.
PARTICULARS of PRIVATE-SIDING TRAFFIC, showing Value of Traffic done during Twelve Months ending 31st March, 1909—continued.

Hd. Office Reg. No.	Papers.	Date of Grant.	Present Holder.	Position.	Nearest Station.	By whom paid for.	Term of Grant.	Amount of Traffic guaranteed per Annum.	Liquidated Damages or Premium.	Value of the Traffic through the Siding during the Year ending 31st March, 1909.			Total.
										In.	Out.	£ s. d.	
816	R. 92/806 ..	Mar. 1, 1902	N.Z. Loan and Mercantile Agency Company (Limited)	M. ch.	Christchurch ..	Grantees	10 years* ..	†	Rental, £50	£ 1,123 10 1	£ s. d. 424 2 9	£ s. d. 1,547 12 10	
818	R. 01/2143 ..	April 1, 1902	Wright, Stephenson, and Co. ..	..	Kelso ..	"	10 " * ..	Premium ..	207 0 0	217 19 5	471 7 6	689 6 11	
819	R. 92/1000 ..	April 1, 1902	Southland Frozen Meat and Produce Export Company (Limited)	..	Mataura	"	10 " * ..	†	Repairs, £48	2,166 10 10	4,375 11 7	6,542 2 5	
822	R. 02/2529 ..	Feb. 1, 1902	Canterbury Farmers' Co-operative Association (Limited)	..	Stutholme	"	10 " * ..	†	Rental, £25	30 18 6	193 2 9	224 1 3	
834	R. 02/3673 ..	Nov. 1, 1902	N.Z. Loan and Mercantile Agency Company (Limited)	..	Timaru	"	10 " * ..	†	Rental, £50	664 3 6	289 14 10	953 18 4	
835	R. 03/477 ..	Dec. 1, 1902	Donald Reid and Co. (Limited) ..	..	Dunedin	"	10 " * ..	†	Rental, £50	4,264 0 7	579 11 2	4,843 11 9	
840	R. 02/3422 ..	Jan. 1, 1903	William H. Martyn ..	..	Wetheral	"	10 " * ..	†	Rental, £25	58 0 5	139 14 11	192 15 4	
843	R. 00/2781 ..	Jan. 1, 1903	Canterbury Central Co-operative Dairy Company (Limited)	..	Addington	"	10 " * ..	†	Rental, £25	139 7 8	140 5 8	279 13 4	
844	R. 93/1075 ..	Feb. 1, 1903	N.Z. Loan and Mercantile Agency Company (Limited)	..	Gore ..	"	10 " * ..	†	Repairs, £215s. Rental, £25	253 11 1	201 14 5	455 5 6	
845	R. 03/1083 ..	May 1, 1903	A. P. Tutton ..	..	Rangiora	"	10 " * ..	Premium ..	100 0 0	106 11 11	138 12 11	240 4 10	
846	R. 03/1839 ..	Oct. 1, 1902	Canterbury Frozen Meat and Dairy-produce Export Company (Limited)	..	Belfast	"	10 " * ..	†	Rental, £25	4,778 11 0	3,246 13 11	8,025 4 11	
847	R. 02/3211 ..	Jan. 1, 1903	T. D. Ward ..	..	Bluff ..	"	10 " * ..	Premium ..	110 0 0	731 0 4	146 7 5	877 7 9	
849	R. 93/2140 ..	May 1, 1903	Nichol Bros. ..	..	"	"	10 " * ..	†	Rental, £50	3,456 6 4	963 10 9	4,419 17 1	
853	R. 99/1940 ..	May 1, 1903	Lytelton Borough Council (Shaw, Savill, and Albion Company, Kaye and Carter, tenants)	..	Lytelton	"	10 " * ..	†	Rental, £50	3,383 12 10	1,003 18 3	4,387 11 1	
854	R. 02/3125 ..	June 1, 1903	Vacuum Oil Company ..	..	Christchurch	Govt. ..	10 " * ..	..	Rental, £50	630 17 5	108 3 2	739 0 7	
856	R. 03/1919 ..	June 1, 1903	Pyne and Co. ..	..	"	Grantees	10 " * ..	Premium ..	350 0 0	1,517 13 0	843 3 5	2,360 16 5	
860	R. 03/2316 ..	Aug. 1, 1903	Canterbury Frozen Meat and Dairy-produce Export Company (Ltd.)	113 12	Pareora	"	10 " * ..	"	Rental, £50	3,204 18 2	2,526 15 10	5,731 14 0	
864	R. 98/4318 ..	Oct. 1, 1908	C. and W. Gore ..	..	Wingatui	"	1 " * ..	†	..	191 1 1	916 16 4	1,152 17 5	
865	R. 00/1544 ..	Sept. 1, 1903	Lovell's Flat Coal Company	..	Lovell's Flat	"	8 years and 247 days*	†	..	Nil.	Nil.	Nil.	
878	R. 99/263 ..	Feb. 1, 1904	J. Borgfeldt ..	..	Papanui	"	5 years* ..	†	Rental, £25	175 19 5	4 10 7	180 10 0	
881	R. 97/2835 ..	Feb. 1, 1904	J. G. Ward ..	..	Bluff	"	10 " * ..	†	Rental, £50	3,778 4 0	702 5 8	4,480 9 8	
886	R. 03/3959 ..	April 1, 1904	Freeman's Coal Company ..	..	Fernhill	"	5 " * ..	Premium ..	125 0 0	30 1 1	1,585 2 7	1,615 3 8	
888	R. 03/4076 ..	June 1, 1904	North Canterbury Co-operative Stores Company (Limited)	..	Rangiora	"	10 " * ..	"	235 0 0	111 17 3	325 1 3	436 18 6	
894	R. 03/147 ..	April 1, 1904	N.Z. Coal and Oil Company (Limited)	..	Orepuki	Govt. and grantees	5 " * ..	†	Rental, £25	6 1 4	930 16 11	936 18 3	
901	R. 04/1850 ..	July 1, 1904	Christchurch Tramway Board	..	Christchurch	Grantees	10 " * ..	Premium ..	500 0 0	874 7 0	..	874 7 0	
902	R. 99/2096 ..	Aug. 1, 1904	Lytelton Borough Council	2 65	Heathcote	Govt. ..	5 " * ..	†	Rental, £50	92 11 0	..	92 11 0	

RETURN NO. 24—continued.
PARTICULARS of PRIVATE-SIDING TRAFFIC, showing Value of Traffic done during Twelve Months ending 31st March, 1909—continued.

Id. Reg. No.	Papers.	Date of Grant.	Present Holder.	Position.	Nearest Station.	By whom paid for.	Term of Grant.	Amount of Traffic guaranteed per Annum.	Liquidated Damages or Premium.	Value of the Traffic through the Siding during the Year ending 31st March, 1909.			
										£	s.	d.	Total.
1033	R. 05/754 ..	Mar. 1, 1907	Lyttelton Harbour Board	M. ch.	Lyttelton	Govt. ..	5 years* ..	..	..	£	s.	d.	£ s. d.
1039	R. 01/1860 ..	July 1, 1907	Christchurch City Council	..	..	..	5 " " ..	..	..	328	4	2	407 8 7
1044	R. 07/2596 ..	Sept. 1, 1907	Watson Bros. and Harrington	37 30	Te Pumu	..	5 " " ..	Premium..	..	9	7	6	388 8 9
1045	R. 07/1740 ..	Sept. 1, 1907	Southland Sand Brick Company	2 16	Waiaki	Grantees	10 " " ..	"	..	200	6	2	495 10 6
1047	R. 00/1324 ..	May 1, 1907	Anderson's (Limited)	..	Lyttelton	"	5 " " ..	"	..	173	18	10	366 11 9
1050	R. 07/2200 ..	July 1, 1907	G. Bailey	..	Templeton	Grantee	5 " " ..	"	..	..	..	..	9 4 3
1052	R. 99/2623 ..	Oct. 1, 1907	Otago Iron Rolling Mills Company	240 10	Burnside	Govt. ..	5 " " ..	"	..	1,014	12	9	1,015 19 9
1053	R. 97/4377 ..	Oct. 1, 1907	P. McGill	271 40	Milton ..	"	10 " " ..	Premium..	..	1,150	17	4	2,148 1 10
1056	R. 06/3430 ..	Jan. 1, 1908	Redpath and Son	..	Christchurch	"	10 " " ..	"	..	1,437	8	9	1,451 0 4
1058	R. 00/1107 ..	Jan. 1, 1908	Drummond and Lischner	4 72	Conical Hill	Grantees	5 " " ..	"	..	..	..	..	245 0 8
1059	R. 01/600 ..	Jan. 1, 1908	Evans and Co. ..	..	Timaru	Govt. ..	10 " " ..	"	..	1,219	15	2	1,750 1 2
1060	R. 98/1147 ..	Jan. 1, 1908	J. Deans	..	Christchurch	"	10 " " ..	"	..	1,582	16	8	1,607 13 8
1064	R. 02/3375 ..	Sept. 1, 1907	Timaru A. and P. Association	103 63	Smithfield	Grantees	10 " " ..	"	..	64	12	2	82 19 5
1066	R. 07/3100 ..	July 1, 1907	N.Z. Loan and Mercantile Agency Company	..	Methven	"	10 " " ..	Premium..	..	164	12	4	798 1 6
1070	R. 08/472 ..	Jan. 1, 1908	W. D. Meares ..	..	Christchurch	"	10 " " ..	"	..	Nil.	..	..	Nil.
1071	R. 06/2609 ..	Feb. 1, 1908	Murray, Roberts, and Co.	..	Dunedin	"	10 " " ..	"	..	1,083	17	6	1,477 2 7
1072	R. 91/4426 ..	Nov. 1, 1907	Timaru Milling Company	..	Timaru	"	10 " " ..	Premium..	..	938	3	10	1,380 3 8
1080	R. 07/3358 ..	July 1, 1908	Dalgaty and Co. (Limited)	..	Invercargill	"	10 " " ..	"	..	476	5	5	849 3 9
1083	R. 03/1984 ..	Aug. 1, 1908	R. Green	241 70	Abbotsford	Govt. ..	Month to month	"	..	..	..	..	306 10 3
1086	R. 05/3076 ..	July 1, 1908	Timaru Harbour Board	..	Timaru	Grantees	10 years* ..	"	..	3,172	12	8	8,136 5 1
1088	R. 04/2833 ..	Sept. 1, 1908	Canterbury Frozen Meat and Dairy Produce Export Company (Ltd.)	..	Fairfield	"	10 " " ..	"	..	4	16	9	650 10 0
1090	R. 98/4223 ..	Oct. 1, 1908	Oamaru T. T. and O. K. Stone Company (Limited)	..	Whitecraig	"	5 " " ..	"	..	1,987	17	11	2,467 2 6
1091	R. 06/2890 ..	Oct. 1, 1908	W. Stephens and Co. (Limited)	..	Addington	"	10 " " ..	Premium..	..	632	5	7	910 3 0
1092	R. 99/490 ..	Jan. 1, 1909	N.Z. Loan and Mercantile Agency Company (Limited)	..	Lyttelton	"	10 " " ..	"	..	..	..	..	869 1 0
1104	R. 98/4319 ..	Dec. 1, 1908	Palmer and Son	..	Pelichet Bay	Govt. ..	5 " " ..	"	..	..	..	..	869 1 0
1105	R. 01/1450 ..	Dec. 18, 1908	N.M. and A. Co. of N.Z. (Limited)	..	Ashburton	Grantees	7 " " ..	"	..	..	..	..	Nil.
1108	R. 08/3510 ..	Dec. 1, 1908	Raymond and Co. (Limited)	..	Te Tuu..	"	5 " " ..	Premium..	..	Nil.	..	..	Nil.
1112	R. 03/3479 ..	Oct. 1, 1908	Tairā County Council	..	Mosgiel	"	5 " " ..	"	..	1,478	12	2	2,481 12 0
1116	R. 00/478 ..	Feb. 1, 1909	The Canterbury (N.Z.) Seed Company (Limited)	..	Addington	"	10 " " ..	"	..	..	..	..	2,251 6 11
1118	R. 03/3654 ..	Jan. 1, 1909	Southland Sawmilling Company	..	Waihoaka	"	5 " " ..	"	..	8	5	1	2,243 1 10

RETURN NO. 24—continued.
PARTICULARS OF PRIVATE-SIDING TRAFFIC, showing Value of Traffic done during Twelve Months ending 31st March, 1909—continued.

Reg. No.	Papers.	Date of Grant.	Present Holder.	Posi- tion.	Nearest Station.	By whom paid for.	Term of Grant.	Amount of Traffic guaranteed per Annum.	Liquidated Damages or Premium.	Value of the Traffic through the Siding during the Year ending 31st March, 1909.				
										In.	Out.	Total.		
NELSON SECTION.														
238	R. 81/1947 ..	Aug. 31, 1881	Neale and Haddow	M. ch. 1 0	Nelson	Grantees	Undefined	Premium ..	£ s. d. 150 0 0	£ s. d. 383 12 8	£ s. d. 25 5 7	£ s. d. 408 18 3		
958	R. 05/892 ..	July 1, 1905	E. Buxton and Co. (Limited)	..	"	"	10 years* ..	" ..	180 0 0 Rental, £25	120 16 5	69 1 8	189 18 1		
—	R. 00/1834 ..	Oct. 1, 1899	M. Lightband ..	..	"	(Right held in connection with lease)		" ..	67 18 0	141 6 2	..	141 6 2	
PICTON SECTION.														
794	R. 99/2880 ..	Dec. 1, 1901	Christchurch Meat Company (Ltd.)	13 35	Spring Creek	Grantees	10 years* ..	†	Repairs, £15 Rental, £25	58 4 5	30 16 10	89 1 3		
797	R. 01/2132 ..	Feb. 1, 1902	Levin and Co. (Limited) ..	17 69	Blenheim	"	10 " * ..	†	Repairs, £9 Rental, £25	604 6 9	442 15 1	1,047 1 10		
800	R. 91/3490 ..	Nov. 1, 1901	N.Z. Loan and Mercantile Agency Company (Limited)	..	Picton	"	10 " * ..	†	Repairs, £5 Rental, £25	131 16 6	..	131 16 6		
870	R. 93/3737 ..	Nov. 1, 1903	N.Z. Loan and Mercantile Agency Company (Limited)	17 62	Blenheim	"	10 " * ..	†	Rental, £25	713 8 2	804 16 8	1,518 4 10		
916	R. 04/1190 ..	Sept. 1, 1904	Wellington and Marlborough Cement, Lime, and Coal Coy. (Limited)	..	Elevation	"	5 " * ..	Premium ..	200 0 0	..	..	..
1098	R. 06/1461 ..	Jan. 1, 1909	Corry and Co. ..	..	Blenheim	"	10 " * ..	" ..	265 0 0 Rental, £25	60 5 4	81 9 4	141 14 8	

* Three months' notice.

† Siding originally laid under old agreement.

RETURN No. 25.

STATEMENT showing approximately SLEEPERS LAID and REMOVED up to 31st March, 1909.

Year.	Approximate Length opened each Year.			Sleepers.	
	North Island.	Middle Island.	Total.	Laid during Construction. (2,100 per mile.)	Removed during Maintenance.*
	M. ch.	M. ch.	M. ch.		
1867 .. ..	..	45 70	45 70	96,338	..
1870-71 .. ..	..	18 58	18 58	39,323	..
1871-72 .. ..	..	11 68	11 68	24,885	..
1872-73 .. ..	..	27 62	27 62	58,327	..
1873-74	10 55	11 21	21 76	46,095	..
1874-75	61 19	126 78	188 17	395,246	..
1875-76	69 23	248 4	317 27	666,409	..
1876-77	64 24	152 39	216 63	455,254	..
1877-78	103 76	94 58	198 54	417,217	..
1878-79	27 19	56 46	83 65	176,006	..
1879-80†	26 33	40 73	67 26	141,382	..
1880-81	68 39	32 71	101 30	212,888	74,261
1881-82	22 67	40 16	63 3	132,379	73,947
1882-83	2 2	40 19	42 21	88,751	106,763
1883-84	22 19	22 50	44 69	94,211	125,632
1884-85	56 0	24 0	80 0	168,000	148,325
1885-86	43 26	47 52	90 78	191,048	137,993
1886-87	58 72	11 39	70 31	147,814	139,040
1887-88	11 47	17 32	28 79	60,874	122,027
1888-89	18 31	..	18 31	42,814	108,690
1889-90	11 57	20 68	32 45	68,381	129,634
1890-91	28 21	5 68	34 9	71,636	133,954
1891-92 .. ..	..	27 27	27 27	57,408	139,912
1892-93	17 26	..	17 26	36,382	132,569
1893-94	28 38	33 58	62 16	130,620	155,827
1894-95	16 62	27 24	44 6	92,558	170,681
1895-96	14 73	3 48	18 41	38,876	188,291
1896-97	3 64	1 11	4 75	10,370	210,588
1897-98	27 46	10 2	37 48	78,960	243,479
1898-99	22 46	11 13	33 59	70,848	282,326
1899-1900 .. ..	..	19 26	19 26	40,582	302,354
1900-1901	4 30	103 38	107 68	226,485	345,433
1901-1902	11 20	12 32	23 52	49,665	369,339
1902-1903	28 40	27 43	56 3	117,679	330,029
1903-1904	33 12	4 44	37 56	79,170	309,296
1904-1905	17 61	27 75	45 56	95,970	302,252
1905-1906	23 5	8 52	31 57	66,596	309,183
1906-1907 .. ..	..	50 7	50 7	105,184	283,293
1907-1908	10 38	4 61	15 19	31,999	331,678
1908-1909	186 21	23 21	209 42	440,003	279,190
Totals .. ..	..	..	..	5,564,633	5,985,986

* Complete information not recorded until 1880-81.

† Nine months only.

RETURN No. 26.

COMPARATIVE STATEMENT of the NUMBER of EMPLOYEES for March, 1908, and March, 1909.

Department.	Kawakawa.	Whangarei.	Kaihu.	Gisborne.	North Island Main Line and Branches.	South Island Main Line and Branches.	Westland.	Westport.	Nelson.	Picton.	Total.
1908-9.											
General .. ..	..	..	..	..	..	..	..	..	..	..	460
Traffic	7	19	8	10	1,826	1,755	134	74	39	27	3,899
Maintenance	5	17	10	16	2,308	1,874	168	42	48	56	4,544
Locomotive	3	20	5	5	1,679	1,611	132	106	15	26	3,602
Totals	15	56	23	31	5,813	5,240	434	222	102	109	12,505
1907-8.											
General .. ..	..	..	..	..	..	..	..	..	..	..	307
Traffic	7	24	7	6	1,557	1,845	139	82	34	24	3,725
Maintenance	9	17	12	11	1,932	1,936	127	58	52	38	4,192
Locomotive	3	21	6	3	1,767	1,964	179	130	15	26	4,114
Totals	19	62	25	20	5,256	5,745	445	270	101	88	12,338

RETURN NO. 28.
LOCOMOTIVE RETURNS for the Year ending 31st March, 1909.

Type.	Number of Engines.		Average Speed—Miles per Hour.		Engine-Mileage.		Quantity of Stores.			Cost.			Cost per Engine-Mile in Pence.			Days in Steam.
	Detail.		Total.		Running.			Running.			Running.					
	Train.	Shunting and Empty.	Work-train.	Coal.	Oil.	Tallow.	Waste.	Repairs.	Running.		Repairs.	Running.				
									Stores.	Fuel.		Stores.	Fuel.			
														Wages and Mate- rial.	Wages.	
														Total.		

KAWAKAWA SECTION.

C	1	15	3,680	1,263	212	5,155	Cwt.	1,323	165	7	82	£	20	£	230	110
D	1	15	4,122	1,362	138	5,622		1,331	188	10	89		21		251	111
Totals	2	...	7,802	2,625	350	10,777		2,654	353	17	171		41		481	221
General charges...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	92	...
Totals	...	...	...	...	...	...	...	...	...	...	...	...	...	...	573	...
															...	12'76

WHANGAREI SECTION.

C	1	15	3,820	5,510	24	9,354	2,619	204	26	128	42	9	53	206	310	180
FA	2	17	27,018	7,614	138	34,770	16,524	665	46	402	267	28	335	710	1,340	413
WB	2	17	29,743	7,542	248	37,533	23,097	816	50	441	574	34	469	712	1,789	362
Totals	5	...	60,581	20,666	410	81,657	42,240	1,685	122	971	883	71	857	1,628	3,439	955
General charges...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	440	...
Totals	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,879	...
															...	11'40

KAIHU SECTION.

F	2	15	13,101	4,441	2,001	19,543	3,633	417	27	187	175	16	231	427	849	317
General charges...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	103	...
Totals	...	...	...	...	...	...	...	...	...	...	...	...	...	...	952	...
															...	11'69

RETURN No. 28—continued.
LOCOMOTIVE RETURNS for the Year ending 31st March, 1909—continued.

Type.	Number of Engines.		Average Speed—Miles per Hour.		Engine-Mileage.		Quantity of Stores.				Cost.				Cost per Engine-Mile in Pence.				Days in Steam.		
					Detail.		Total.	Running.				Repairs.		Running.		Repairs.					
					Train.	Shunting and Empty.		Coal.	Oil.	Tallow.	Waste.	Wages and Mate-rial.	Stores.	Fuel.	Wages.	Total.	Wages and Mate-rial.	Stores.		Fuel.	Wages.	Total.
D	2	12	32.448	5.847	6,495	44,790	10,896	1,496	67	459	279	£	52	795	£	1.50	28	4.26	4.55	10.59	
General charges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.17	...
Totals	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12.76	...

GISBORNE SECTION.																					
D	2	12	32.448	5.847	6,495	44,790	10,896	1,496	67	459	279	£	52	795	£	1.50	28	4.26	4.55	10.59	
General charges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2.17	...
Totals	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12.76	...

NORTH ISLAND MAIN LINE AND BRANCHES.																					
A	12	25	209.946	13.461	61	223,468	108,442	9,416	327	3,186	1,663	347	4,842	3,114	9,966	1.79	37	5.20	3.34	10.70	
Bc	1	20	8,899	1.132	5	10,036	5,491	379	24	115	98	12	292	154	556	2.34	29	6.98	3.68	13.29	
C	2	15	22	20,609	11,667	32,298	6,753	596	59	340	230	24	352	890	1,496	1.71	18	2.61	6.61	11.11	
D	8	15	15,710	98.324	26,090	140,124	31,170	4,361	320	1,870	1,145	147	1,638	3,604	6,534	1.96	25	2.81	6.17	11.19	
E*	4	20	36,534	18,599	21,502	76,635	29,418	2,928	211	1,263	1,130	105	1,729	1,548	4,512	3.54	33	5.41	4.85	14.13	
E†	4	20	4,181	2,694	...	6,875	10,548	1,053	39	349	711	30	586	347	1,674	2.82	1.05	20.46	12.11	58.44	
F	24	20	168,489	219,326	123,546	511,361	144,178	13,366	836	5,441	4,847	492	6,661	11,678	23,678	2.27	23	3.13	5.48	11.11	
FA	6	20	69,127	40,363	10,877	126,367	52,319	3,802	205	1,536	2,057	142	2,210	2,867	7,216	3.91	27	4.20	5.33	13.71	
H	6	20	33,766	26,193	90	60,049	68,221	5,909	187	1,046	3,281	205	3,768	2,683	9,937	13.11	82	15.06	10.72	39.71	
J	17	20	482,084	69,560	5,393	557,847	232,264	15,044	759	5,007	7,168	533	11,302	8,899	27,902	3.08	23	4.86	3.83	12.00	
K	2	25	32,772	10,205	181	43,158	18,969	962	74	568	744	43	939	801	2,527	4.14	24	5.22	4.46	14.06	
L	9	20	191,816	49,302	2,010	243,128	82,894	7,340	356	2,052	1,839	281	3,772	4,192	10,084	1.82	28	3.72	4.14	9.96	
M	4	20	79,207	17,693	4,304	101,204	29,029	2,861	151	1,76	1,154	104	1,613	1,484	4,355	2.74	25	3.82	3.52	10.33	
N	12	25	336,193	38,272	925	375,390	155,871	10,065	482	3,605	4,973	359	8,557	5,229	19,118	3.18	23	5.47	3.34	12.22	
Nc	4	20	41,359	3,159	...	44,518	24,180	1,883	90	492	109	49	1,336	580	2,164	1.07	26	7.20	3.13	11.66	
O	6	15	139,906	35,379	6,781	182,066	81,180	6,979	247	2,270	2,842	237	4,591	3,663	11,243	3.75	31	6.01	4.75	14.82	
Ob	2	20	10,482	1,836	...	12,318	8,855	668	47	236	425	20	475	223	1,143	8.28	39	9.25	4.35	22.27	
OC	2	20	16,520	2,178	...	18,698	11,053	806	43	260	188	27	590	302	1,107	2.41	35	7.57	3.88	14.21	
P	4	18	63,659	8,564	17,262	89,485	53,373	2,591	134	1,091	1,347	100	2,933	1,758	5,238	3.61	27	5.45	4.72	14.05	
Q	6	25	191,843	16,969	...	208,812	124,368	5,272	251	1,950	2,280	203	4,693	2,948	10,124	2.62	24	5.39	3.39	11.64	
R	10	20	148,071	43,580	47,917	239,568	77,369	8,426	443	3,187	1,221	295	4,193	4,550	10,259	1.22	30	4.20	4.56	10.28	
S	4	20	82,123	35,902	8,155	126,180	43,473	5,957	269	1,461	1,095	198	2,239	2,435	6,567	3.22	38	4.26	4.63	12.49	
T	2	18	54,508	8,269	92	62,869	33,632	1,116	72	542	1,953	47	1,475	1,141	3,716	4.02	18	5.63	4.36	14.19	
Ud	2	30	16,570	428	85	17,083	8,504	555	38	168	90	15	457	192	754	1.26	21	6.42	2.70	10.59	
V	3	20	9,268	2,888	72	12,228	6,078	626	49	212	408	19	325	241	1,053	9.19	37	6.38	4.73	20.67	
WA	9	20	232,622	44,977	9,975	287,572	108,224	9,784	541	2,949	3,184	348	6,143	4,907	14,582	2.66	29	5.13	4.09	12.17	
WB	7	20	195,800	19,430	2,935	218,165	103,569	9,408	252	2,284	3,235	324	6,164	3,344	13,067	3.56	35	6.78	3.68	14.37	
Wd	14	20	308,567	62,438	16,107	447,172	215,505	18,615	710	4,843	6,112	692	11,903	7,734	26,041	3.28	37	6.18	4.15	13.98	
WE	2	15	54,797	14,185	...	68,982	35,714	4,122	151	849	926	134	1,667	1,204	4,231	3.22	47	6.84	4.19	14.72	
WF	22	25	465,815	72,244	748	538,807	245,521	17,449	845	5,819	3,839	644	13,192	9,197	26,872	1.71	29	5.87	4.10	11.97	
WH	3	20	3,245	8,233	5,878	17,359	5,213	707	73	335	169	21	283	419	892	2.34	29	3.91	5.79	12.33	
WJ	1	20	8,191	1,661	14	9,866	6,381	416	23	119	77	13	340	170	600	1.87	32	8.27	4.14	14.60	
X	2	20	3,105	446	...	3,551	2,052	326	16	88	94	12	117	72	295	6.35	81	7.91	4.87	19.94	
General Charges	213	...	3,776,097	1,008,499	328,640	5,113,236	2,169,818	173,788	8,324	58,509	60,484	6,222	110,347	92,450	269,503	2.84	29	5.18	4.34	12.65	
Totals	308,327	14.47	...

* Old.

† New.

RETURN NO. 28—*continued*.
LOCOMOTIVE RETURNS for the Year ending 31st March, 1909—*continued*.

Type.	Number of Engines.		Average Speed—Miles per Hour.		Engine-Mileage.			Quantity of Stores.				Cost.				Cost per Engine-Mile in Pence.																												
	Detail.		Running.		Repairs.		Running.		Total.		Repairs.		Running.		Total.		Repairs.		Running.		Total.																							
	Train.	Shunting and Empty.	Coal.	Oil.	Tallow.	Waste.	Stores.	Wages and Material.	Stores.	Fuel.	Wages.	Stores.	Fuel.	Wages.	Stores.	Fuel.	Wages.	Stores.	Fuel.	Wages.	Stores.	Fuel.	Wages.																					
A	220,241	12,310	9	232,560	Cwt.	Qt.	lb.	lb.	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£																					
B	168,078	23,102	12	191,192	89,023½	8,383	399	3,173	2,721	315	4,685	3,267	10,988	280	33	4'84	3'37	11'34	1437	2032	3567	9429	1437																					
D	25,989	185,228	905	212,122	53,351½	5,074	291	2,915	2,988	279	6,158	4,134	13,559	375	35	7'73	5'19	17'02	2032	3567	9429	1437	2032																					
F	158,804	437,480	110,932	707,216	199,904½	17,198	1,079	6,785	7,283	586	7,823	18,909	34,661	247	20	2'65	6'44	11'76	9429	1437	2032	3567	9429																					
F A	79,520	24,011	31,209	134,740	42,709	3,980	298	1,644	1,718	144	2,247	3,043	7,152	306	26	4'00	5'42	12'74	9429	1437	2032	3567	9429																					
J	314,356	46,561	16,516	377,403	182,171½	10,603	671	4,472	4,859	304	6,208	6,585	18,136	309	25	4'00	4'19	11'53	3679	1778	3679	1778	3679																					
K	80,480	9,491	1,952	91,923	35,855½	2,080	155	1,425	2,186	87	1,696	1,492	5,491	571	22	4'43	3'90	14'26	1778	3679	1778	3679	1778																					
L	8,881	3,302	462	12,645	4,151	412	36	163	297	14	213	255	779	564	26	4'04	4'84	14'78	1890	1890	1890	1890	1890																					
P	100,315	31,654	562	132,531	63,430	5,745	165	1,597	1,984	197	3,574	2,735	8,480	359	36	6'47	4'94	15'36	1308	1308	1308	1308	1308																					
Q	174,429	12,996	334	187,759	89,727	5,987	211	1,957	2,487	245	4,344	2,535	9,611	318	31	5'55	3'24	12'28	1330	1330	1330	1330	1330																					
R	49,419	52,419	45,322	147,160	41,910½	3,005	269	1,833	2,423	115	1,954	3,497	7,989	395	19	3'19	5'70	13'03	1889	1889	1889	1889	1889																					
T	50,329	9,235	22,894	82,458	33,836	3,044	111	1,025	1,396	120	1,816	1,679	5,011	406	35	5'26	4'89	14'58	870	870	870	870	870																					
U	231,771	20,694	190	232,655	113,719½	7,112	371	2,890	3,863	260	5,858	3,822	13,863	367	25	5'56	3'63	13'11	2074	2074	2074	2074	2074																					
U A	131,798	14,685	622	147,075	68,020	4,823	197	1,931	1,915	172	3,499	2,330	7,916	313	28	5'71	3'80	12'92	1348	1348	1348	1348	1348																					
U B	588,596	52,062	2,874	643,532	201,644½	20,265	898	7,586	9,402	781	15,607	9,892	35,772	351	29	5'85	3'69	13'34	5031	5031	5031	5031	5031																					
U C	234,695	20,560	364	235,619	115,604½	8,519	476	3,305	4,977	304	6,175	4,108	15,624	467	29	5'80	3'91	14'67	2351	2351	2351	2351	2351																					
V	213,081	32,153	1,467	246,701	155,886½	7,199	350	2,924	4,630	261	13,035	4,366	13,035	450	25	3'68	4'25	12'68	2473	2473	2473	2473	2473																					
W D	57,933	19,951	9,108	86,092	36,180	3,688	123	1,202	964	128	2,024	1,897	5,013	269	36	5'64	5'29	13'98	992	992	992	992	992																					
W F	239,410	61,870	11,328	312,668	127,480	10,556	533	3,884	2,970	364	6,823	6,171	16,328	228	28	5'24	4'74	12'54	3,079	3,079	3,079	3,079	3,079																					
Totals	3,127,165	1,069,764	257,062	4,453,991	1,856,415½	135,853	7,007	53,621	61,774	4,954	86,825	87,002	240,555	333	27	4'67	4'69	12'96	46,042	46,042	46,042	46,042	46,042																					
General charges
Totals																						

RETURN NO. 28—continued.
LOCOMOTIVE RETURNS for the Year ending 31st March, 1909—continued.

Type.	Number of Engines.			Average Speed—Miles per Hour.			Engine-Mileage.			Quantity of Stores.				Cost.				Cost per Engine-Mile in Pence.				Days in Steam.
										Running.				Repairs.		Running.		Running.		Total.		
														Shunting and Empty.		Work-train.		Total.		Wages and Material.			Stores.		Fuel.		Wages.
WESTLAND SECTION.																						
D	1	18	984	19,803	2,450	23,237	Cwt. 4,525	Qt. 813	lb. 37	229	88	22	118	£ 629	£ 857	22	1'22	6'50	266			
F	5	20	64,644	33,392	17,119	115,155	36,175	4,215	196	1,285	705	120	945	2,324	4,094	1'47	1'97	4'84	1,310			
FA	1	20	318	164	...	482	105	17	5	19	73	1	4	11	89	36'35	49	5'48	44'32			
LA	5	20	62,412	20,150	9,111	91,673	27,697	3,512	188	1,111	1,102	104	730	1,715	3,651	2'88	1'91	4'49	1,148			
W	2	15	25,824	7,600	137	33,561	13,733	1,769	96	530	413	53	363	710	1,539	2'95	2'60	5'08	448			
WA	2	20	49,258	6,147	541	55,946	19,941	2,347	78	657	181	79	520	933	1,713	78	2'23	4'00	547			
Totals	16	...	203,440	87,256	29,358	320,054	102,236	12,673	600	3,831	2,562	379	2,680	6,322	11,943	1'92	2'01	4'74	3,726			
General charges															1,670							
Totals		13,613	10'21	...		
WESTPORT SECTION.																						
C	2	12	18	33,686	65	33,769	7,325	1,093	93	544	468	37	220	998	1,723	3'33	1'57	7'09	439			
F	3	15	18,961	24,614	14,256	57,831	11,696	1,574	146	873	551	57	352	1,325	2,285	2'29	1'46	5'50	899			
FA	2	15	24,936	18,513	1,248	44,697	14,511	2,109	109	702	277	75	431	949	1,732	1'49	2'31	5'10	540			
WB	3	20	63,407	15,871	88	79,366	38,304	4,186	143	1,035	1,328	142	1,005	1,382	3,857	4'01	3'04	4'18	688			
Totals	10	...	107,322	92,684	15,657	215,663	71,836	8,962	491	3,154	2,624	311	2,008	4,654	9,597	2'92	2'23	5'18	2,476			
General charges															1,718							
Totals		11,315	12'59	...		
NELSON SECTION.																						
D	1	18	1,923	856	496	3,275	935½	136	1	26	12	5	46	85	148	88	37	6'23	139			
F	1	18	14,941	2,387	16	17,344	4,649	436	6	109	140	15	227	330	712	1'93	21	4'57	229			
FA	2	18	47,245	5,065	121	52,431	14,657	1,630	73	559	323	57	716	887	1,983	1'48	26	4'06	502			
Totals	4	...	64,109	8,308	633	73,050	20,241½	2,202	80	694	475	77	989	1,302	2,843	1'56	25	4'28	870			
General charges															471							
Totals		3,314	10'89	...		
PICTON SECTION.																						
D	1	18	3,261	1,314	9,991	14,566	2,759	503	14	118	162	17	139	296	614	2'67	28	4'88	199			
FA	1	18	4,304	1,206	94	5,604	1,572	208	...	19	100	6	79	107	292	4'28	26	4'58	67			
G	4	18	58,606	19,995	11,297	89,898	23,744½	3,553	20	581	640	113	1,199	1,620	3,572	1'71	30	4'33	1,021			
Totals	6	...	66,171	22,515	21,382	110,068	28,075½	4,264	34	718	902	136	1,417	2,023	4,478	1'97	29	4'41	1,287			
General charges															836							
Totals		5,314	11'58	...		

RETURN No. 29.

HURUNUI-BLUFF SECTION.

RETURN of COAL TRAFFIC from LOCAL MINES during the Year ending 31st March, 1909.

Mine.	1908-9.	1907-8.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.
Springfield Coal Company, Springfield ... ..	...	70	...	70
St. Helen's, White Cliffs	1,348	1,188	160	...
Homebush, Glentunnel	10,065	10,371	...	306
Mount Somers Coal Company, Mount Somers	2,435	3,329	...	894
Woolshed Creek Company, Mount Somers	202	1,288	...	1,086
Albury	185	190	...	5
Waihao Forks	267	545	...	278
Gibson's	27	120	...	93
Kurow	14	27	...	13
Ngapara	101	131	...	30
Shag Point	223	259	...	36
Allandale Coal Company	10,479	16,817	...	6,338
Saddle Hill	39,404	40,997	...	1,593
Fernhill	19,960	22,369	...	2,409
Mosgiel	885	974	...	89
Taratua Mine, Lovell's Flat	16,029	15,551	478	...
Lovell's Flat Coal Company	3,246	...	3,246	...
Benbar	235	203	32	...
Kaitangata	102,180	97,542	4,638	...
Bruce Coal Company	13,889	8,094	5,795	...
Real Mackay Coal Company, Milton ... ..	...	7,532	...	7,532
Anderson's, Stirling	92	55	37	...
Conical Hills	2,500	2,800	...	300
O'Hagan, C., Pukerau	59	64	...	5
Smythe, Gore ... ..	...	20	...	20
New Zealand Express Company, Gore	1,562	1,599	...	37
Sleeman, C. P., Maitara	527	3,578	...	3,051
Beattie, Coster, and Co., Maitara	3,174	3,322	...	148
Collieries Company, Maitara	5,231	2,112	3,119	...
Beattie and Co., Maitara	531	...	531	...
Groves, G., Nightcaps ... ..	...	629	...	629
Nightcaps Coal Company, Nightcaps	46,995	46,405	590	...
McKenzie, D., Nightcaps	2,047	1,298	749	...
Tucker, Nightcaps	149	...	149	...
Grant, J., Nightcaps	68	62	6	...
Spence, J., Nightcaps	1,118	433	685	...
Reed, Nightcaps ... ..	...	10	...	10
McBride, A., Nightcaps	10	10	...	...
Nichol, B., Nightcaps	5	...	5	...
Tinker and Co., Nightcaps	1,079	217	862	...
Thomas, Nightcaps ... ..	...	6	...	6
Quested, Nightcaps ... ..	...	6	...	6
Wairio Coal Company, Nightcaps	2,638	186	2,452	...
Westport Coal Company, Nightcaps	207	...	207	...
J. Lloyd, Nightcaps	46	...	46	...
Withers, J., Gore	72	76	...	4
Green and Co., Gore	539	...	539	...
Broom and Co., Gore	310	...	310	...
Bowden, Ashers	770	937	...	167
Smith, Fairfax	6	66	...	60
Clark, Wyndham	63	214	...	151
Greene, Wyndham ... ..	...	4	...	4
Totals	290,972	291,706	24,636	25,370

RETURN No. 30.
HURUNUI-BLUFF SECTION.

RETURN of the NUMBER of VESSELS DISCHARGED and LOADED at the Ports of Lyttelton, Timaru, Oamaru, Port Chalmers, Dunedin, and Bluff, for the Year ending 31st March, 1909.

Port.	1908-9.	1907-8.	Increase.	Decrease.
DISCHARGED :—	No.	No.	No.	No.
Lyttelton	1,659	1,708	..	49
Timaru	272	291	..	19
Oamaru	152	184	..	32
Port Chalmers	116	97	19	..
Dunedin	103	94	9	..
Bluff	236	257	..	21
Totals	2,538	2,631	..	93
LOADED :—	No.	No.	No.	No.
Lyttelton	1,712	1,609	103	..
Timaru	236	285	..	49
Oamaru	140	187	..	47
Port Chalmers	131	79	52	..
Dunedin	44	21	23	..
Bluff	236	260	..	24
Totals	2,499	2,441	58	..

RETURN No. 31.

SOUTH ISLAND MAIN LINE AND BRANCHES.

SHOWING MILEAGE of TRACK in MAIN LINE and SIDINGS OPEN for TRAFFIC on 31st March, 1909,
on the SOUTH ISLAND MAIN LINE and BRANCHES.

Line of Railway.	Main Line.		Branches.	Total Railway.	Sidings.			Total Equivalent of Single Track.
	Single.	Double.			Main Line.	Branches.	Total.	
CHRISTCHURCH DIVISION :—	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.
Main Line	211 57	6 28	...	218 5	84 52	...	84 52	302 57
Rangiora-Sheffield and Eyre- ton Junction - Bennett's	...	...	53 56	285 61	...	4 60	29 64	58 36
Waipara-Domett .. .. .	...	...	31 46			2 71		34 37
Southbridge and Little River Branches	...	...	48 7			6 7		54 14
Springfield and White Cliffs Branches	...	...	53 56			5 40		59 16
Rakaia and Ashburton Forks [Branch	...	...	22 20			3 14		25 34
Mount Somers Branch .. .. .	...	...	27 36	268 21	...	1 75	27 57	29 31
Albury Branch .. .. .	...	...	36 13			2 70		39 3
Waimate Branch .. .. .	...	...	12 67			2 47		15 34
Totals, Christchurch Division	211 57	6 28	285 61	503 66	84 52	29 64	114 36	618 22
DUNEDIN DIVISION :—	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.
Main Line	165 40	2 12	...	167 52	64 45	...	64 45	232 17
Duntroon Branch .. .. .	...	...	37 41	268 21	...	3 10	27 57	40 51
Oamaru-Breakwater Branch .. .. .	...	...	0 63			1 62		2 45
Ngapara and Livingstone Branches	...	...	27 4			2 18		29 22
Waihemo Branch .. .. .	...	...	8 65			0 63		9 48
Port Chalmers Branch .. .. .	...	...	1 26			3 65		5 11
Walton Park Branch .. .. .	...	...	2 49	285 47	...	0 52	33 7	3 21
Fernhill Branch .. .. .	...	...	1 57			0 23		2 0
Otago Central Railway .. .. .	...	...	134 51			10 14		144 65
Outram Branch .. .. .	...	...	9 0			0 65		9 65
Lawrence Branch .. .. .	...	...	22 1			1 73		23 74
Catlin's River Branch .. .. .	...	...	22 64	368 8	31 1	2 12	64 8	24 76
Totals, Dunedin Division	165 40	2 12	268 21	435 73	64 45	27 57	92 22	528 15
INVERCARGILL DIVISION :—	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.	M. ch.
Main Line	82 41	...	...	82 41	31 1	...	31 1	113 42
Tapanui Branch .. .. .	...	...	26 21	285 47	...	2 46	33 7	28 67
Waimea Plains Branch .. .. .	...	...	36 41			3 23		39 64
Waikaka Branch .. .. .	...	...	12 57			1 77		14 54
Wyndham Branch .. .. .	...	...	9 35			0 77		10 32
Seaward Bush Branch .. .. .	...	...	25 39			2 4		27 43
Kingston Branch .. .. .	...	...	87 0	368 8	31 1	9 47	64 8	96 47
Makarewa-Orepuki Branch .. .. .	...	...	40 16			7 7		47 23
Thornbury-Wairio and Wairio- Nightcaps Branches	...	...	24 51			3 30		28 01
Forest Hill Railway .. .. .	...	...	12 66			1 13		13 79
Lumsden-Mararoa Branch .. .. .	...	...	10 41			1 3		11 44
Totals, Invercargill Division	82 41	...	285 47	368 8	31 1	33 7	64 8	432 16
Grand Totals—Whole Line	459 58	8 40	839 49	1,307 67	180 18	90 48	270 66	1,578 53

RETURN No. 32.

STATEMENT of ALTERATIONS in and ADDITIONS to SCALE of CHARGES during the Year ended 31st March, 1909.

PART I.—PASSENGERS.

GENERAL FARES AND REGULATIONS.

Fifty-trip family and fifty-trip single commutation tickets : Rates reduced, and issue extended to 25 miles.

Workers' twelve-trip commutation tickets : Issue extended to 25 miles, and rates provided.

Annual season tickets : Alteration in rates consequent on the additional mileage available for travel upon the opening of the North Island Main Trunk Line and the taking-over of the Wellington and Manawatu Railway Company's line.

Tourist excursion tickets : Alteration in rates consequent on the additional mileage available in the North Island.

Free school season tickets : Alteration made in accordance with the amended regulations of the Education Department.

Reserving seats in carriages : Provision extended to the Auckland-Wellington express trains.

Sleeping-berths : Accommodation provided on Auckland-Wellington express trains, and rates fixed.

LOCAL FARES AND REGULATIONS.

Auckland Section.

Workers' weekly tickets : Issue extended to 25 miles, and rates provided.

Suburban fares : Suburban area extended to 20 miles, and provision made for the issue of tickets accordingly.

Wellington - Napier - New Plymouth Section.

Workers' weekly tickets : Issue extended to 25 miles, also to Johnsonville and intermediate stations on the Wellington-Longburn line.

Suburban fares : Suburban area extended to 20 miles, and provision made for the issue of tickets accordingly ; suburban area also extended to Johnsonville on the taking-over of the Wellington and Manawatu Railway Company's line.

Hurunui-Bluff Section.

Workers' weekly tickets : Issue extended to 25 miles, and rates provided.

Suburban fares : Suburban area extended to 20 miles, and provision made for the issue of tickets accordingly.

PART II.—LUGGAGE, PARCELS, HORSES, Etc.

Motor tricycles : Rates amended.

PART III.—GOODS : CLASSIFIED RATES.

Timber rates for distances of 155 miles and over reduced.

Oregon timber : Charge inserted.

PART III.—GOODS : REGULATIONS.

Stock forwarded by rail for depasturing : Provision made for free return to destination.

Provision made for free carriage of fodder forwarded by rail for feeding starving stock.

Exhibits for Palmerston North Art Exhibition carried free at consignor's risk.

Reduction made in the rates for the conveyance of road-metal for local bodies.

Rate for Oregon timber amended.

Coal (Native, brown, anthracite, or bituminous) : Rates for distances of 75 miles and over reduced.

Class E : Tariff brought into line with by-law limiting the weight of wheat, barley, or oats contained in any one sack to 200 lb.

PART IV.—GOODS : LOCAL RATES.

Auckland Section.

Rates fixed for the conveyance of goods and live-stock between stations on Auckland Section and Kaipara ports by the Sellars-Allan Shipping Company.

Provision made for a reduction in the rate on timber (other than white-pine) consigned from Matapuna and stations south thereof to Auckland, Mount Eden, Onehunga Wharf, and intermediate stations.

Provision made for a reduction in the rates on white-pine timber for distances of 180 miles and over.

Wellington—Napier—New Plymouth Section.

Provision made for charges on material for Harbour Board Dock-site, Te Aro.
Rate on white-pine timber reduced for distances of 180 miles and over.

Hurunui—Bluff Section.

Regulations amended providing that the charges on ships' goods between Lyttelton and Christchurch charged at measurement shall not be computed on more than twice the actual weight of any package.

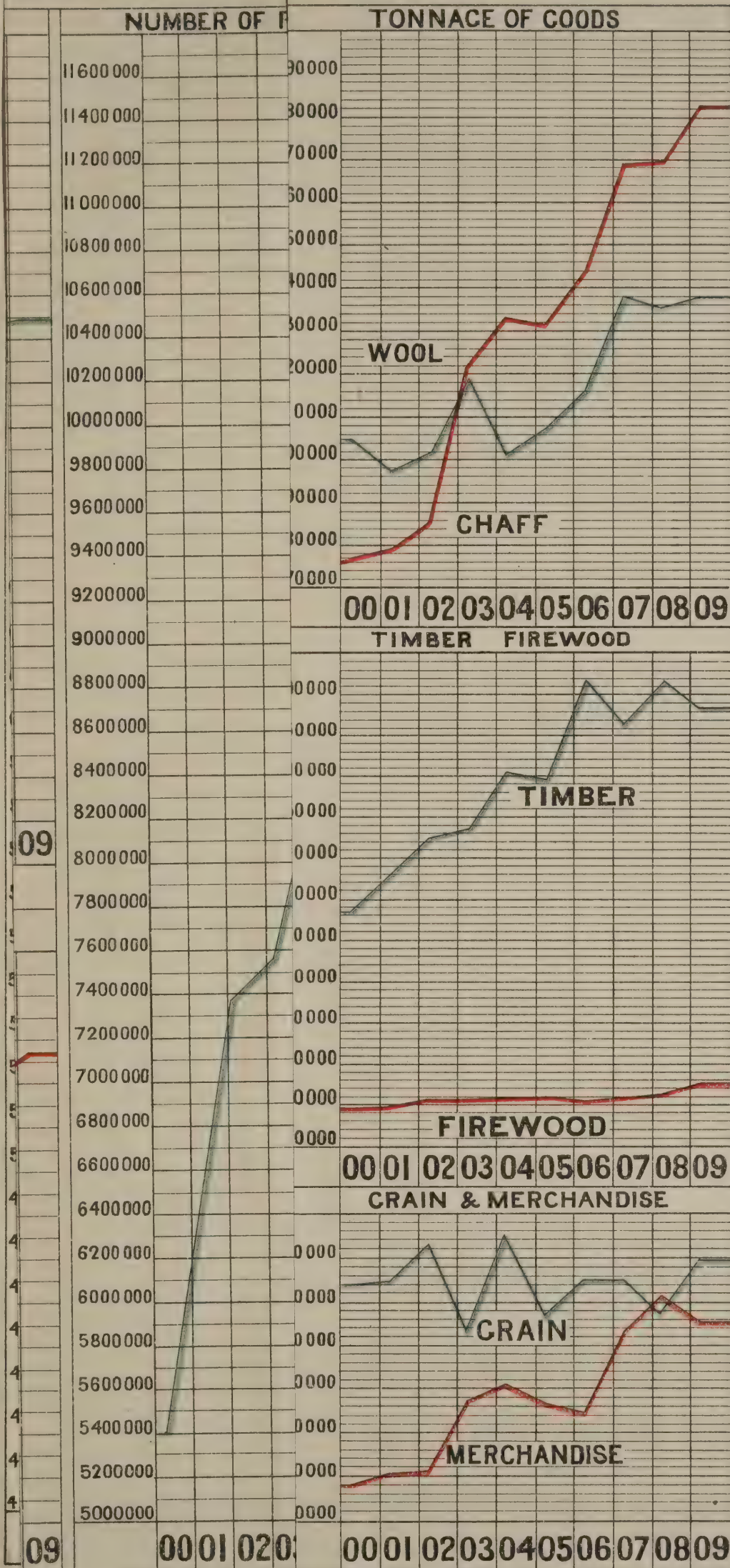
Rate for white-pine timber reduced for distances of 180 miles and over.

Timber from sawmills in Southland consigned to stations north of Dunedin : Rates amended.

PART V.—CLASSIFICATION OF GOODS.

							Class.
Removed—							
Sheep-daggins	...	...	...	...	...	...	D
Tin-plates, packed, consigned to factories			...	...	...	...	D
Inserted—							
Molasses for preservation of New Zealand timber	...	..		...	...	...	D
Pipes, steel, water or gas, not otherwise specified.	Owner's risk				...	...	B
Pipes, steel, water or gas, New Zealand manufacture.	Owner's risk				...	...	C
Sheep-daggins, rate and a half	...	...	...	...	...	...	E
Tin-plates, packed, consigned to factories	...	...	...	...	...	...	D
Timber, Oregon-pine, sawn or balk, rate and a half...		...	...	...	...	...	K

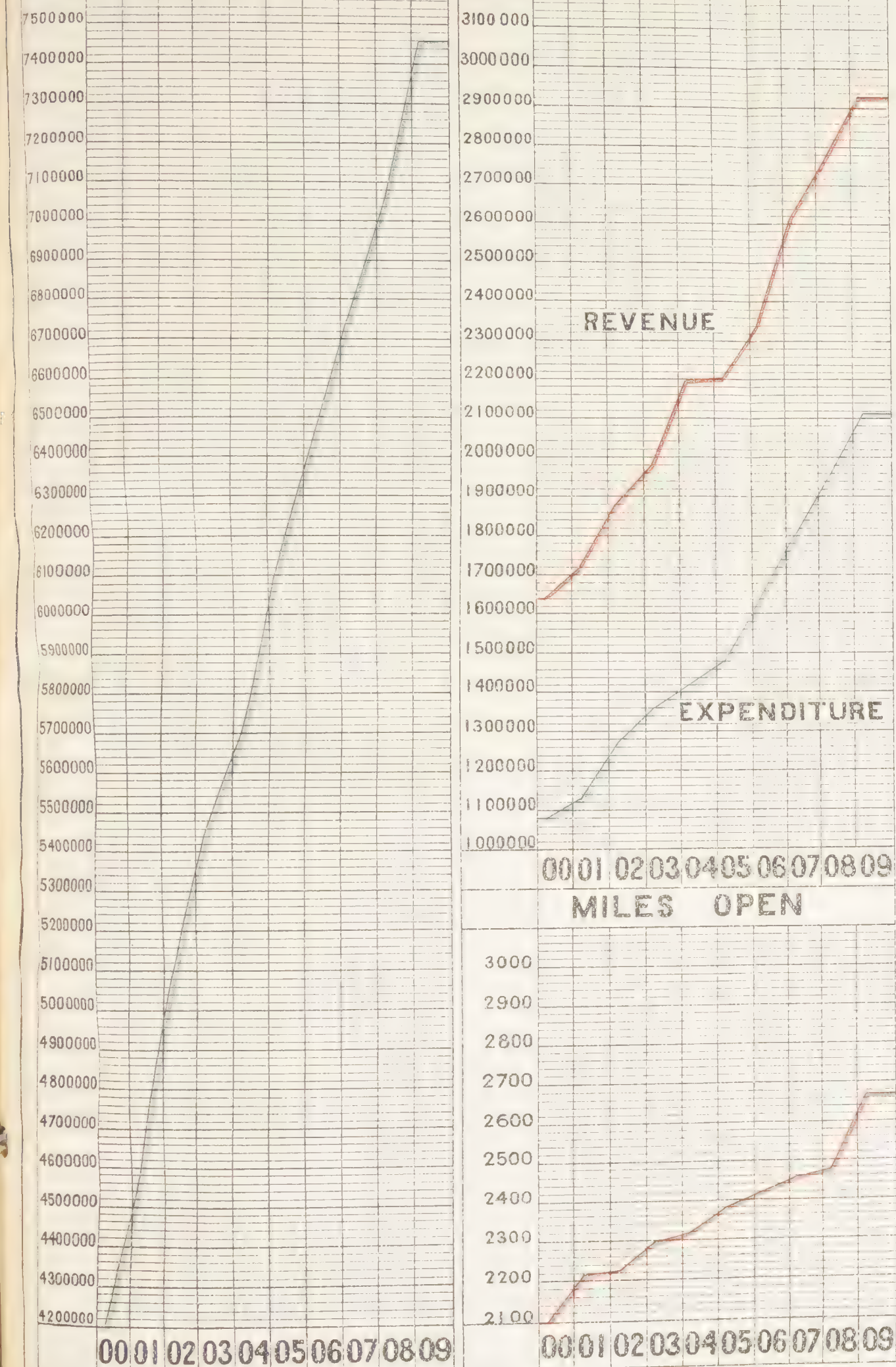
GOVERNMENT RAILWAYS



NEW ZEALAND GOVERNMENT RAILWAYS

TRAIN MILEAGE

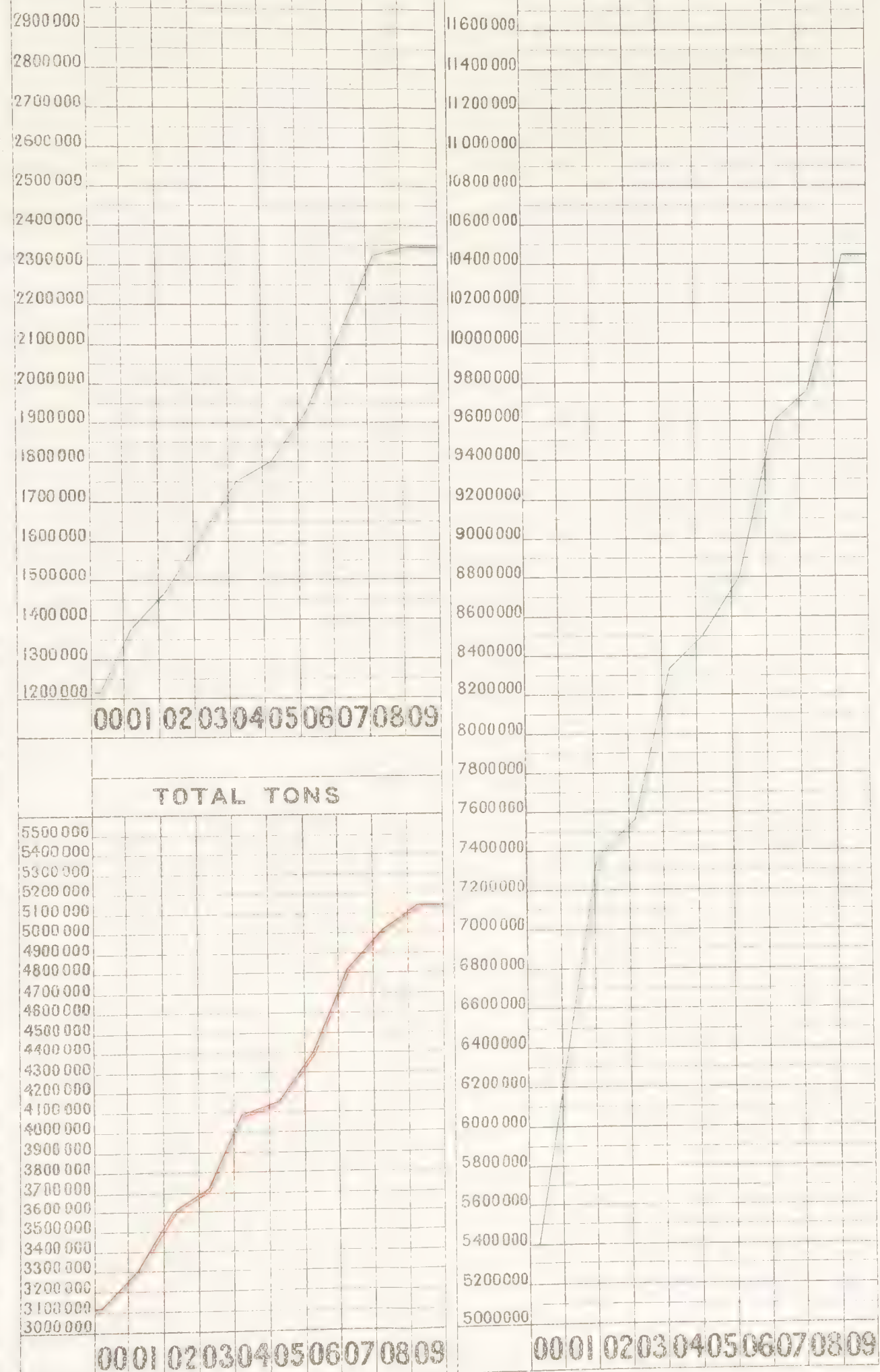
REVENUE & EXPENDITURE



NEW ZEALAND GOVERNMENT RAILWAYS

MINERALS

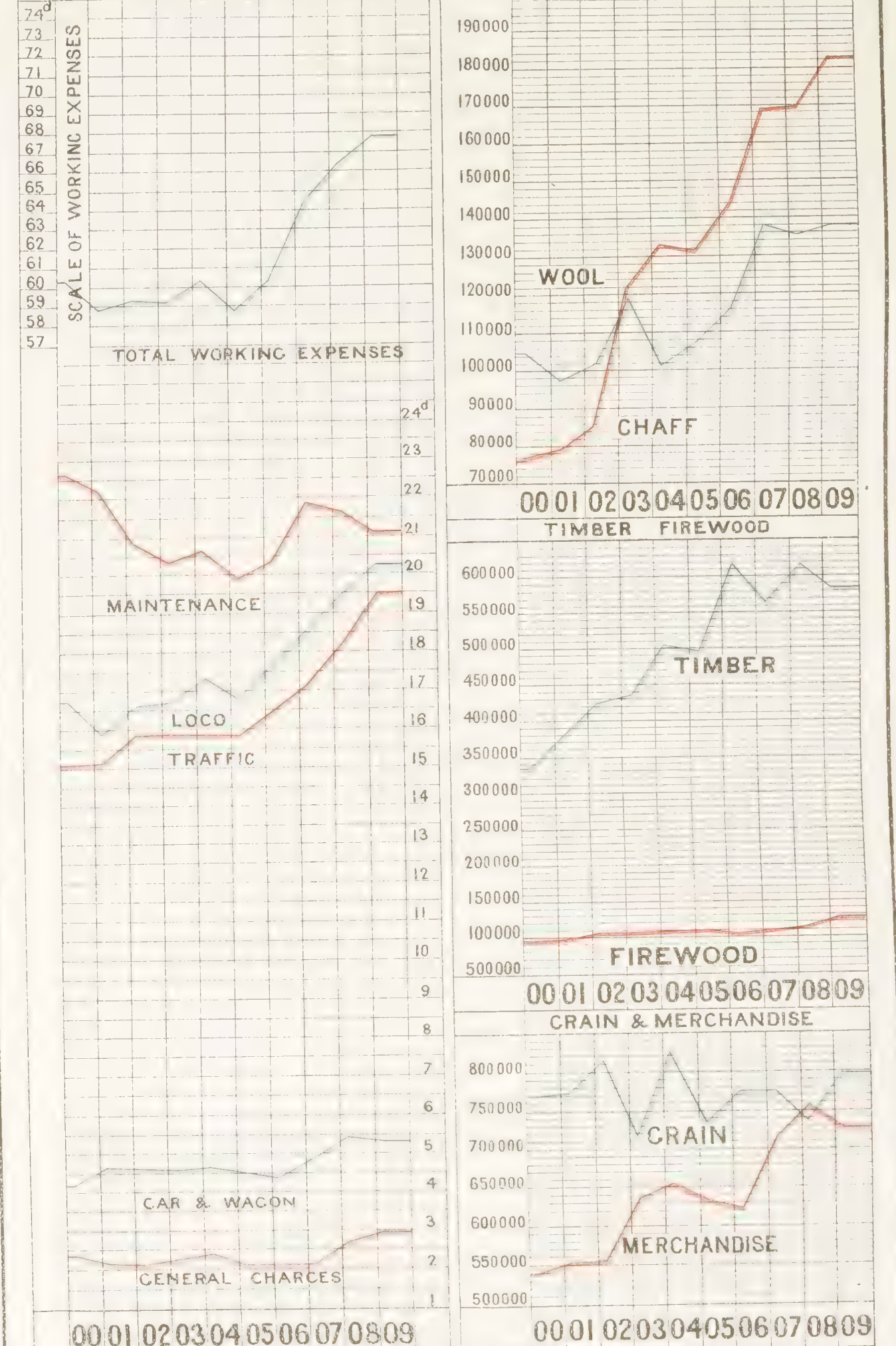
NUMBER OF PASSENGERS



NEW ZEALAND GOVERNMENT RAILWAYS

WORKING EXPENSES PER TRAIN MILE

TONNAGE OF GOODS



MAP OF NEW ZEALAND

SHEWING
RAILWAY, STEAMER, AND COACH ROUTES.

STATISTICS.

Government Railways open for traffic on 31st March 1909	2682 miles
Private Companies' lines	29 "
Capital cost of Government Railways open on 31st March, 1909	£27,767,592
Revenue from Government Railways, year ending 31st March, 1909	£2,929,806
Expenditure on " "	£2,114,815
Passengers carried	10,457,144
Number of season tickets issued	192,547
Cattle, sheep, and pigs carried	5,488,999
Tonnage carried	4,871,874
Number of miles travelled by trains	7,458,296
Number of locomotives	432
Number of passenger-carriages	1,116
Number of wagons and brake-vans	16,476
Area of Dominion, square miles	104,471
Population, estimated at 31st March, 1909	1,016,044
Chief cities.	
Auckland	82,101
Wellington	63,807
Christchurch	67,873
Dunedin	56,020

North Island

South Island

Scale of English Miles



REFERENCE.

Government Railways open for traffic	—
Private lines	—
Coach routes	—
Roads and tracks	—
Steamer routes	—

DISTANCES BY RAILWAY.

	Miles.
Auckland to Wellsford	72
" Rotorua	171
" Wanganui	344
" Cambridge	101
" Thames	148
New Plymouth to Wanganui	107
" Napier	276
" Wellington (via Longburn)	261
" (via Rimutaka)	296
Napier to Wellington (via Longburn)	199
" (via Rimutaka)	210
Wellington to Auckland (via Longburn)	426
Christchurch to Culverden	69
" Dunedin	230
Dunedin to Dunedin	78
Dunedin to Clyde	143
" Invercargill	139
" Lawrence	60
" Bluff	156
" Kingston (via Waimea Plains Line)	174
" (via Invercargill)	226
Bluff to Kingston	104



OPENING OF NORTH ISLAND MAIN TRUNK RAILWAY, 6TH NOVEMBER, 1908, AT MANGANUI-A-TE-AO, BY RIGHT HON. SIR J. G. WARD,
K.C.M.G., PRIME MINISTER.



RIGHT HON. SIR J. G. WARD, K.C.M.G., PRIME MINISTER, ADDRESSING VISITORS AT OPENING OF NORTH ISLAND MAIN TRUNK LINE,
AT MANGUNI-A-TE-AO.



RIGHT HON. SIR J. G. WARD, K.C.M.G., PRIME MINISTER, DRIVING THE LAST SPIKE, NORTH ISLAND MAIN TRUNK LINE, AT
MANGANUI-A-TE-AO, 6TH NOVEMBER, 1908.



AUCKLAND—PENROSE DUPLICATION WORKS.—PARNELL BRIDGE OVER STRAND, AUCKLAND.
128 ft. span lattice girder.



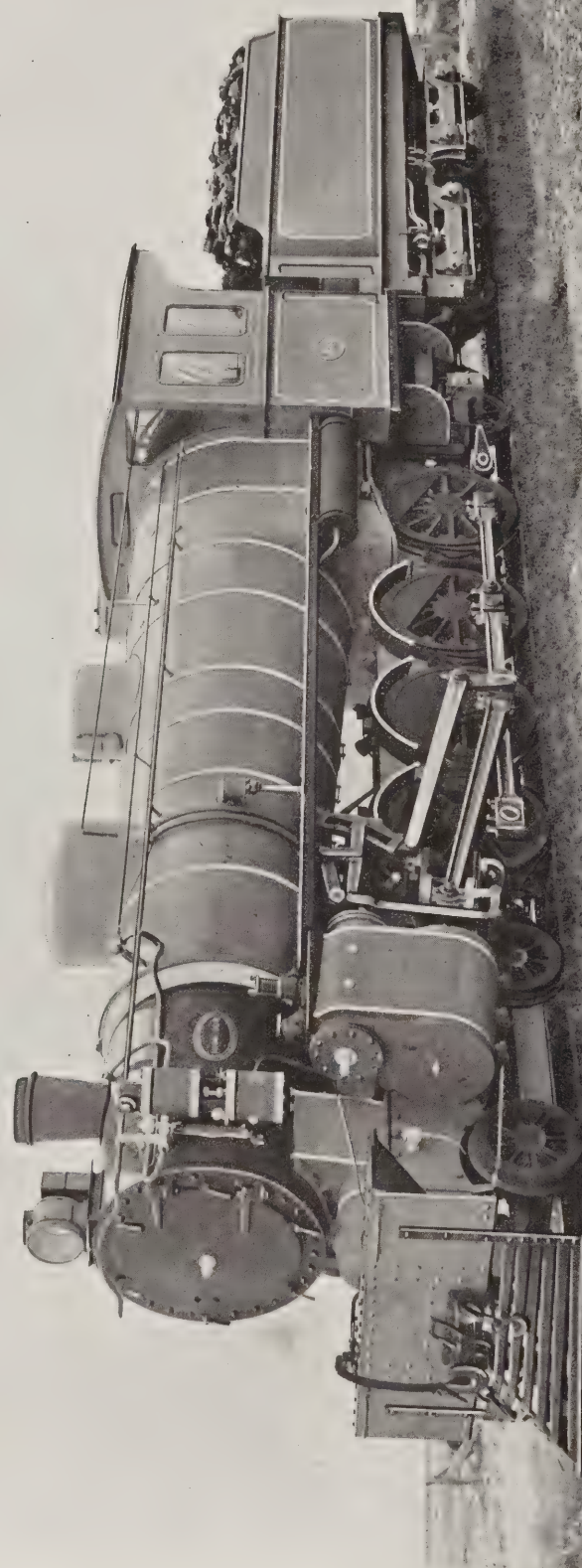
MAIN TRUNK OVERLAND EXPRESS TRAIN LEAVING WELLINGTON FOR AUCKLAND, 426 MILES.
Train comprising mail-van, dining-car, sleeping-car, five ordinary 50 ft. passenger-cars, and brake-van. Length of train, 585 ft.; weight of train, 320 tons. Drawn by Class A 4-cylinder compound locomotive, 72 tons; banking-engine assisting in rear. Grade, 1 in 40.



DUNEDIN-MOSGIEL DUPLICATION WORKS.—NEW BRIDGE OVER ANDERSON'S BAY ROAD, DUNEDIN.
Length, 165 ft. One span 93 ft., and three spans 24 ft.



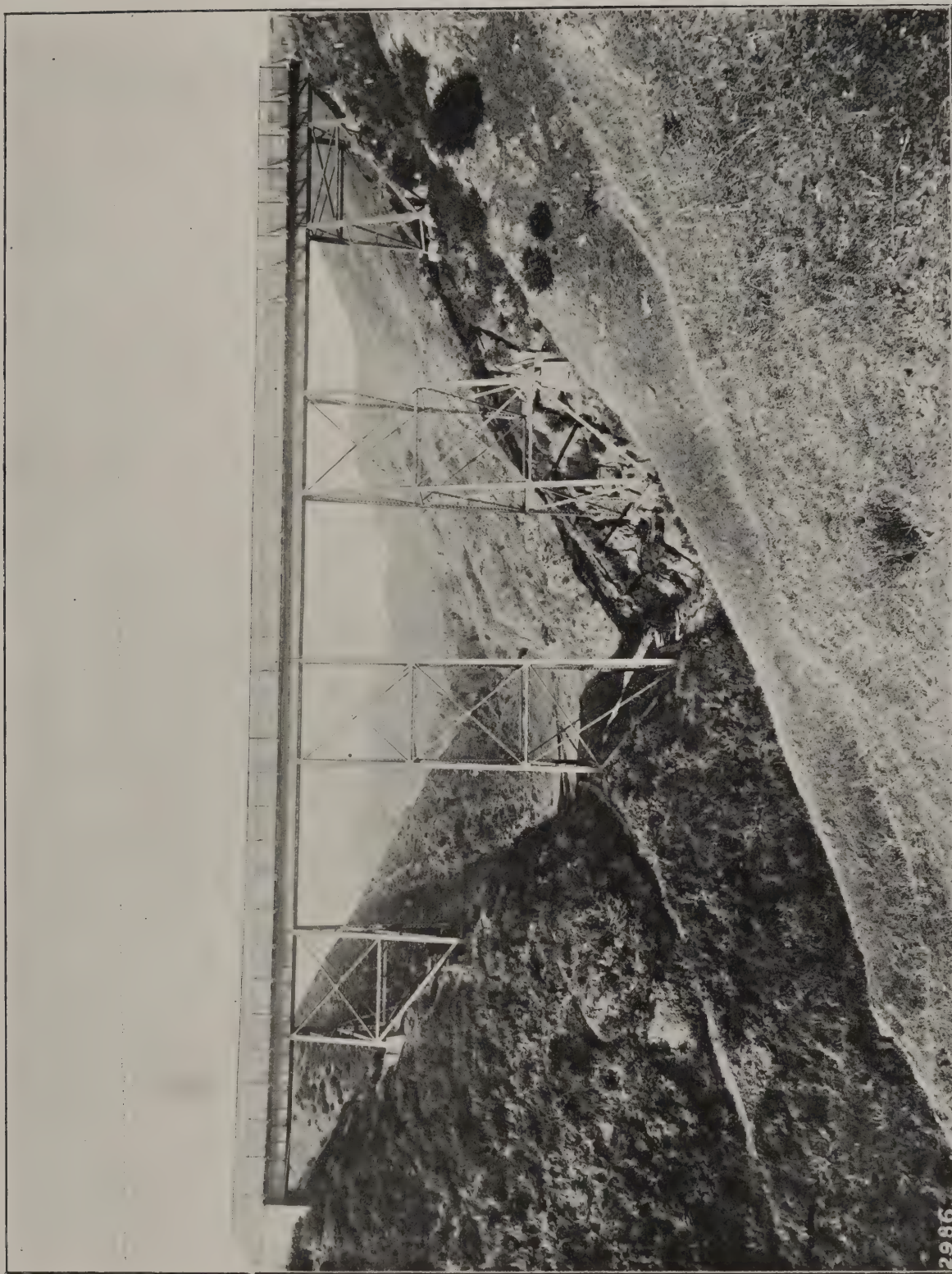
NEW ZEALAND GOVERNMENT RAILWAYS.—CLASS AA 50 FT. SLEEPING-CAR.
Built in New Zealand Government Railway Workshops. Interior showing a Four-berth Sleeping-compartment (three Berths prepared). Gauge of line,
3 ft. 6 in.



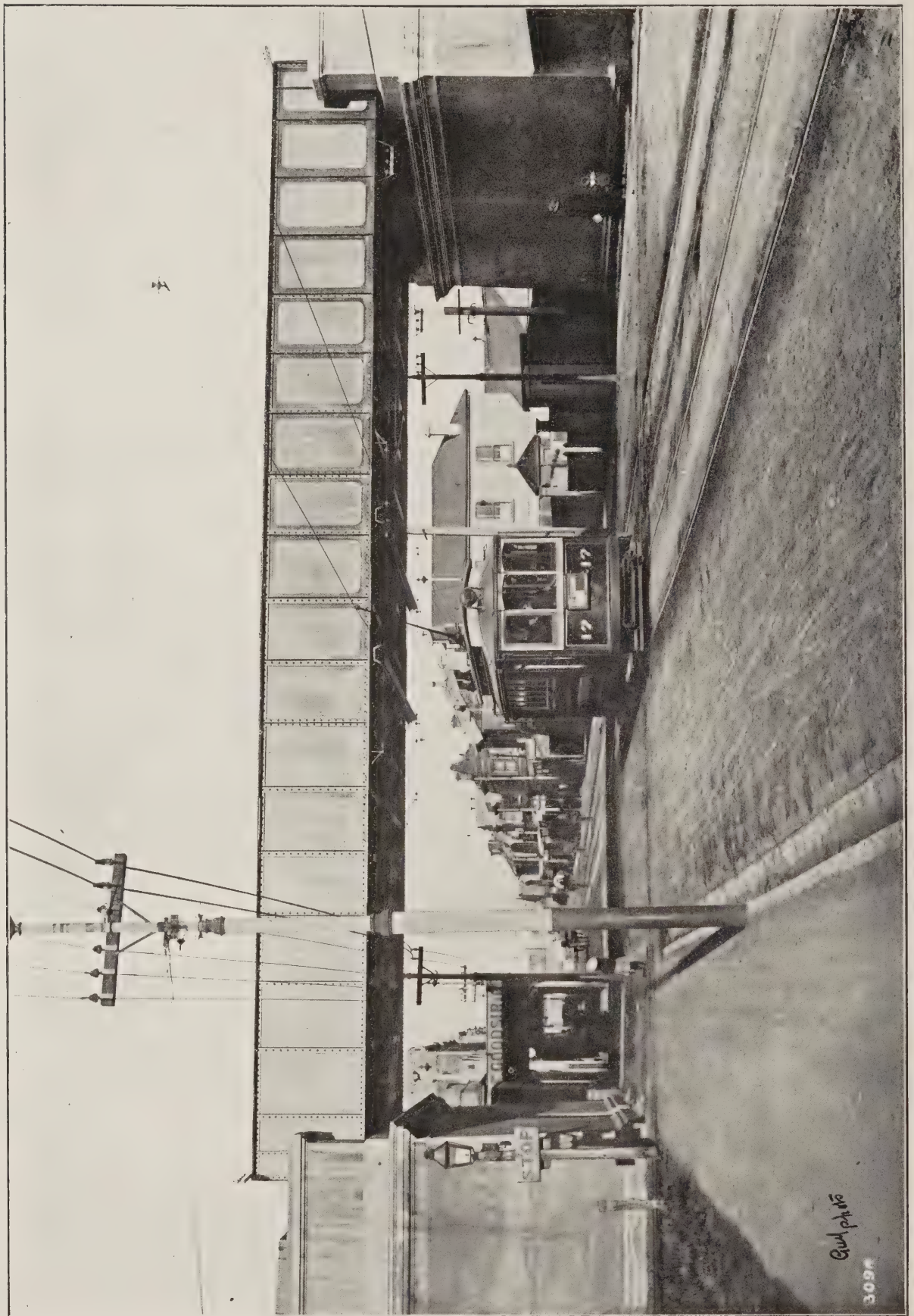
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CLASS X.—FOUR-CYLINDER BALANCED COMPOUND LOCOMOTIVE, 4-8-2 TYPE, SPECIALLY DESIGNED FOR WORKING HEAVY GRADIENTS ON NORTH ISLAND MAIN TRUNK RAILWAY.

Built in New Zealand Government Railway Workshops. Gauge of line, 3 ft. 6 in. Diameter of coupled wheels, 3 ft. 9 in. Cylinders—h.p., 13½ in.; l.p., 22 in.; stroke, 22 in. Working steam pressure, 250 lb. per square inch. Weight in working-trim, 94 tons.



WELLINGTON-AUCKLAND RAILWAY.—BELMONT VIADUCT, NEAR JOHNSONVILLE.
Height, 125 ft.; length, 342 ft. Spans, four 50 ft., four 30 ft., and one 22 ft.



DUNEDIN—MOSGIEL DUPLICATION WORKS.—BRIDGE OVER KING EDWARD ROAD, DUNEDIN.
73 ft. 6 in. plate girder.

1909.

NEW ZEALAND.

ADDINGTON RAILWAY WORKSHOPS

(MINUTES OF EVIDENCE GIVEN BEFORE THE BOARD OF INQUIRY ON THE).

Presented to both Houses of the General Assembly by Command of His Excellency.

THURSDAY, 11TH MARCH, 1909.

Mr. T. RONAYNE, General Manager of New Zealand Railways, examined. (No. 1.)

Witness: In connection with this matter I think it is only right and proper, and in justice to myself, the Department, and the men—the men especially—that I should make a statement in order that the full facts of the case may be laid before all concerned. With your permission I will make that statement now. My informant called at my office and made strong representations as to the slow and leisurely manner in which the boilermakers were doing their work. In his opinion the shops required shaking up, and he urged me to send a strong letter to Addington. The work in the smiths' shop was not so severely criticized, but he considered that there was a certain amount of slowness there. My informant is a man fully competent to judge as to the amount of work a boilermaker should perform, and as to the celerity in movements necessary to insure a fair day's work. The information was of such a specific nature that, in the interests of the Dominion and also of the men, I felt it my duty to place the matter before the Chief Mechanical Engineer, who has charge of the Workshops. The information, coming as it did from a man who previously had on many occasions spoken in the highest terms of the quality and quantity of the work turned out in the boiler-shops, a man whom I considered was actuated by motives conducive to the proper working of the shops, a man who had always, prior to the interview referred to, really acted as the boilermakers' champion in any cases where they thought that they were not being fairly treated, caused me much indignation, and while in that frame of mind my letter was written. In due course I received reports from the Locomotive Engineer, the Workshops Manager, and all of the foremen, although in reality there were only two shops—the boiler-makers' and the smiths' shops—implicated, couched in more or less indignant language, denying that there was any inattention to their duties on the part of the men. Knowing the officers in question to be zealous and intelligent in the discharge of their several duties, and having every confidence in them, I could only come to one conclusion, and that was that the information I had received could not have been correct. Prior to receiving the information, I may say that I had the utmost confidence in the men in the boiler and smiths' shops, and I was amazed to learn that they had so fallen off in their work—not in the quality, as I know that Addington can hold its own with any locomotive-shops in the world, but in the lack of energy they were said to be putting into their work. From what I have since learned my informant considers he has been misunderstood, and that he made no strictures regarding the smiths' shop—in fact, did not mention the smiths' shop. So far as this is concerned my memory is quite clear on the matter, and there was no misunderstanding on my side. Contrary to the rules and regulations in force on the New Zealand Railways, my letter was handed to the Press by some unscrupulous person, when a further investigation was deemed necessary, and to avoid any suspicion, and in fairness to the officers and men, I recommended that a public inquiry should be held by experts having no connection with the Department. In doing so I felt convinced that the honour of the officers and men on whom my informant had cast such serious reflections would be fully vindicated. My reference to Price Bros. and the Petone shops was intended to act as an incentive to the Chief Mechanical Engineer to see if there could be a greater output of work.

1. *The Chairman.*] Will you put in as evidence the letter which you wrote to the Chief Mechanical Engineer?—Yes. The first letter had no right to get out. I considered the matter, and thought it was manifestly unfair to prejudge the case, and gave immediate instructions to have it withdrawn. It is not my style to prejudge a case.

2. Your contention is that the letter was intended to act as a departmental whip?—Yes, it was not intended for the staff but for the Chief Mechanical Engineer to deal with through the officers in the ordinary manner. As it is, it has become public property, and grave suspicion has been created in the minds of the public as to whether Addington Workshops are properly conducted.

3. The matter of the letter, you hold, was entirely based upon the information which you received on this occasion?—Certainly I should never have dreamed of sending such a letter if I had not got that information.

4. It was not based on your own observation?—Certainly not. Whenever I have gone through Addington I have thought the work was going on in a very satisfactory manner. Some years ago I had the honour of presiding over that shop, and the manner in which the men discharged their duty then was eminently satisfactory.

5. *Mr. Roberts.*] You think now that the work is carried on in a proper manner in the shops. You are not of the same opinion as when you wrote that letter?—That was my opinion when my mind was very much excited through receiving information from a man whom I considered fully competent to judge as to the manner in which the work was conducted on that particular occasion. I have full reliance on the reports I have received from Mr. Henderson, the foreman of the boiler-shop, and also Mr. Cole, the foreman of the blacksmiths' shop, in addition to which, of course, there is the Workshops Manager's report, which is very explicit. If you desire I can let you have copies of these reports.

6. I think that in your letter you stated that the work was not carried out as expeditiously as at Petone or Hillside. Do you still hold that opinion?—I came to that conclusion on the strength of the information received. I assumed to a certain extent that, if this so-called Government stroke was prevalent at Addington, the work of the other shops in the Dominion must be more cheaply put through. But I would not lay too much stress on the reference made on that occasion; it was for the Chief Mechanical Engineer—a hint to him to look into the cost of production of work by the various workshops—that is, Petone, Hillside, and Addington—for similar work.

7. Has any such comparative statement been received?—It has been done from time to time, but has not been done recently. Work varies very greatly, and it is not an easy matter to make comparisons. We largely specialise in our shops—Addington will do one class, Hillside another—and it is very difficult to make a comparison unless you make a comparison of the cost of like material produced by an outside firm.

8. *The Chairman.*] You mentioned the cost of the engines built by Price Bros. and those at Addington. Will you furnish the Board with a detailed statement of the cost of the A compound engines built by Price Bros. and at Addington, and also furnish the price of the American engines placed on the lines in New Zealand?—Yes. With your permission I would like to say that, when making my comparison on the matter of cost, I did not take into consideration whether Price Bros. were losing money on their contract or not, and, of course, that would place a different complexion on the matter. I have reason to believe that by an award of the Arbitration Court, which was adverse to Price Bros. and does not affect the Railway Department, Price Bros. stand to lose a considerable sum of money on their contract. I have no doubt that the Chief Mechanical Engineer has the permission of Price Bros. to give figures, and I think they will result in showing that the price of the engines produced at Addington will compare favourably with those produced by Messrs. Price Bros. It is only fair to the men that these facts should be elicited.

9. *Mr. Hampton.*] You admit that you sent this letter out which has been published in the papers throughout the Dominion, and which is the cause of this inquiry being held?—Yes, certainly.

10. Are the statements contained therein exactly as communicated to you by the so-called expert engineer?—Not exactly.

11. In what way do they differ?—I conveyed the sense of the information imparted to me.

12. Practically they are the same as given to you?—Yes, and in connection with that it is not a question of memory, because my informant came into my office, and immediately he went my notes and that letter were written. I had not finished writing the letter when Mr. Beattie came in. I handed them to Mr. Beattie, and said, "Mr. Beattie, this is bad reading"; and he said it was. I said, "You had better have it typed, and have an inspection and report as to the correctness or otherwise of the charges." They were charges made against the administration of the shop. Mr. Beattie did that in due course. The letter was dealt with in a rather informal manner, because it is usual for such letters to go through the Chief Clerk of the office. I thought about the matter, and concluded that it was wrong to have in that paragraph commencing "It is futile." I tried to get the letter, and assumed that it had gone through my office. Mr. Beattie, however, had it with my authority, and for the time being we could not find it. That was how the first version came out. The revised version put it quite in order.

13. Then we may conclude that the statements made in your letter are practically identical with those made to you by the so-called expert?—That is quite correct.

14. Can you tell us how long the interview with this so-called expert lasted?—It might have been half an hour.

15. Can you give nothing nearer than that?—No. We were talking about other matters as well. I should say at the very outside the interview would not exceed half an hour; I do not think it would be half an hour.

16. Are you satisfied that this gentleman who had the interview with you had all the qualifications of an expert engineer?—He had all the qualifications to judge as to the proper working of the boiler-shop.

17. That is not what I am asking you. Are you perfectly satisfied he had all the qualifications of an expert engineer?—He had the qualifications of an expert boilermakers' engineer.

18. He was a boilermaker—is that what you mean?—He had the qualifications of a boilermakers' engineer.

19. What do you call a boilermakers' engineer?—You have men who call themselves engineers, and who are not in the ordinary sense mechanical engineers.

20. As head of a large Railway Department, in your judgment was this man you had the interview with qualified to rank as an expert engineer?—So far as boilers are concerned. I would not call him an all-round mechanical engineer. Of course, boilermaking is a branch of engineering. In that respect he is an expert engineer.

21. You refuse to give us the name of the gentleman who had this interview with you?—As a matter of honour I do not feel disposed to do so, because I have not his permission. You might just as well ask the newspaper-proprietor, who got my letter to the Chief Mechanical Engineer surreptitiously, for information as to who gave it him.

22. Have you approached the person for permission to use his name?—No.

23. Do you take the responsibility of those statements yourself—that is, those statements contained in your letter which have been the cause of this inquiry—or do you propose to prove them by calling this gentleman to substantiate their reliability?—I do not propose to call him. I have no power to call him.

24. Was there any intention on your part that these statements should be made public?—Certainly not.

25. Then, if they had not been made public, how would the men have got on? They would have been accused of being loiterers and loafers, and have had no opportunity of refuting the statements?—Very likely the men would know nothing about it.

26. Do you consider it a fair thing to send letters like that behind the backs of men without their knowing anything about it?—It is the usual way. When complaints of a similar nature are received they are referred to the head of the particular branch concerned to get a report upon, and if the men are exonerated—as on this occasion was the case—that is the end of it. The men's minds are not uneasy about these charges; it is the foremen who are responsible. The foreman is the man who is held responsible by the Workshops Manager, by myself, and by the Chief Locomotive Engineer.

27. You have no personal knowledge of men practising what you term "Government stroke"?—No. They would very soon know of it if I did.

28. Then it is merely a statement made to you by this casual visitor to the shop?—It is the opinion of my informant. They are not my words, my view, or my opinion. They are simply the views of my informant, passed on to the Engineer to make inquiries as to the correctness of those views.

29. Do you not think that, before using it in the way you did, you should have asked the officers at Addington to report, and then have heard their side of the case and have come to a judgment?—The first letter was a confidential one to the Chief Mechanical Engineer.

30. From your instructions to the Chief Mechanical Engineer you said, "You will please take such action as will bring this discreditable state of affairs to an end." You appear to have accepted your informant's statement as correct?—For the time being I did. I have had reason to alter it since.

31. You now unreservedly withdraw that letter?—I do not say that, but as far as the men are concerned I am bound to accept the report of my officers, which exonerates them. I am satisfied there is no reasonable ground for complaint.

32. You are satisfied now that such a state of things does not exist?—That is so.

HON. J. E. JENKINSON, M.L.C., examined. (No. 2.)

Witness: I desire to thank the Board of Inquiry for this opportunity of saying a few words, and I want to confine my remarks in the first instance to a personal matter. Before that I want to say one or two things in reference to Mr. Ronayne. I have heard his evidence. From the time I first approached Mr. Ronayne on matters connected with the railways and the railway service, he has been eminently fair and reasonable, and he has given me such reasonable concessions for the benefit of the railwaymen that I cannot help thinking, if the men themselves had the knowledge that Mr. Ronayne had on the questions brought before him by myself and others, they would hold a higher opinion of him than I have heard expressed lately by them. Mr. Ronayne said that he based his memo. on an interview he had with an expert engineer, and that that expert engineer's interview was confidential, and he could not therefore give his name. Well, sir, reading the memo., I am perfectly convinced that a part of it—I cannot say the whole—I do not know what was in Mr. Ronayne's mind—but a part certainly emanated from what I put before him. I take credit for a few of the particular words in that memo., and that is why I think the impression has got abroad that I had more to do with it than I really had. The words, "Five minutes per rivet for the new riveter," are my words. I do not know that those are the words originally said. Mr. Ronayne's account of the interview is not quite correct, so far as I remember. I have a fairly good memory, and particularly regarding this interview, because it has not been allowed to go far out of my mind since the appearance of the memorandum in the newspaper. As a matter of fact, I went to Mr. Ronayne on that morning in reference to an allowance granted of 6d. per day by Parliament to skilled workmen. I asked why that had not been paid, and the matter of the Addington Workshops came up. I might say that for the last few years I have been met, when I approached the Railway Department in connection with Addington, with the answer, "Things are not satisfactory at Addington. The work is costing more at Addington than elsewhere. The men are not turning out the work there in such a way as to be economical to the Dominion." That is the reply I have been met with when I have approached the Department. Knowing that this feeling existed in the minds of the Department, I thought it was time we should strive to get at why the work was not done as economically at Addington as elsewhere. I knew from my own experience that the work was turned out better at Addington than elsewhere, and it was natural, that being the case, that it would cost more. Several times I got this answer from Mr. Ronayne and other heads of Departments. I said that I knew perfectly well that the work was not being turned out economically. Mr. Ronayne said, "Yes?" I said, "Yes, because of the system." I said there was extravagance shown

in the placing of machinery in the shop and in the question of supplying appliances to work that machinery which tended to put the cost of work at Addington above what it should be. A case in point is the new riveting-machine: it is a fine machine, but it is placed in position without appliances, and with the accumulator it is quite impossible for that machine to pay interest on its cost and do such work as will compensate the Department for incurring the extravagance. The gantry is an entire waste of money. I was told that that structure was only there temporarily, and would have to be pulled down, and I said, "That goes to prove that Addington must be hampered by this useless expense." The words "Government stroke" or loafer never occurred in the conversation. Neither Mr. Ronayne nor myself are apt to use such expressions in dealing with Government men; we have their interests too much at heart for that sort of thing. I have said I was calling attention to the cost of the work because of out-of-date appliances, and I quoted the date of the different appliances that were put up to work (those of the hydraulic riveter). I said five minutes per rivet was about as much as could be expected. I think I said that would be rather over than under the mark. I think that if the riveter turned out ninety to a hundred per day on an average it is as much as it could do. I told the workmen at the time that the riveter was not doing the work as it should be doing it, and I was assured then that it was the accumulator which was at fault. It was the one they had for the prior machine, and they had not time to get a new one in. I am thirsting for nobody's blood; I only want to say that the conditions at Addington are such as will not allow the foreman to turn out work in as cheap a manner and as good a manner as hitherto. "He said he was astounded at the slow method and leisurely work of the men generally." I was astounded at the slow method by which work was turned out, because, as I say, the appliances were not such as would allow the men to do better work. I do not think the word "loafing" ever entered our minds. Certainly it did not enter into the conversation; and, if Mr. Ronayne implies that I suggested that loafing was practised, I can only say my whole mind must have altered very much in the last few months. I have the interests of Addington too much at heart for that. That loafing does exist I suppose goes without saying, as it exists in most shops. But to say that loafing is carried out systematically by half or even the majority of the men in the Workshops, I do not think entered into Mr. Ronayne's head, and certainly it did not enter mine. I was very pleased to hear Mr. Ronayne admit that heretofore I have been an ardent supporter of the excellences and capacities of the foreman boilermaker, Mr. Henderson. I say without hesitation he is the best foreman we have had in the Railway Workshops—thoroughly conscientious and knows how to get work out of men, and I am satisfied that the Board of Inquiry will get evidence from men who have been in the shops and are now out of them to prove that Mr. Henderson has all those qualities.

I certainly said that discontent was rife through the Addington Workshops; I did not say there was loafing in the blacksmiths' shop. I certainly said in regard to the boiler-shop, in reference to Mr. Henderson, that I thought the department was too large for one man's supervision. It appeared to me that Mr. Henderson's time was taken up in the office doing clerical work. He has a large department, extending all over the shop, and he had to be out of the boiler-shop a great deal of his time. I have said before that there should be more than one leading hand at Addington. One man is not able to carry out the duties. My suggestion as to increasing the number of leading hands has not been carried out. I cannot grumble about that. I am not running the shops. The Chief Mechanical Engineer probably has reasons for not complying with my request. But I think it would be conducive to the profitable working of the Department if there was more supervision in the shops. I know there was discontent amongst several of the men in the blacksmiths' shop as to the terms they were receiving in regard to their consideration under the last Classification Act passed by Parliament increasing the rates of pay. I think I also told Mr. Ronayne, in connection with this, that to my mind that was one of the chief causes of the discontent—that the men expected that the spirit in which the last Classification Act was passed by Parliament would be adhered to, but to their annoyance they found that the Act was read too strictly and their rise of 6d. per day was withheld. I want to make it clear to the Commission that it was entirely the matter of discontent that I called attention to. I said that the discontent at Addington was far greater now than ever it had been to my knowledge in the shops, and that such discontent probably would cause the work to be turned out in a less economical manner. The reasons I have suggested to the Minister are the conditions of employment and the present classification. I trust the Commission will go into the question of classification, because it is the cause of great discontent. It is used against the men, and I do not think it is very often used in favour of them. I have been against it all the time, but I know it very often hampers the Department in making such promotion as it thinks should be carried out in the interests of the railways.

Every inducement should be given to the men to give their best efforts, and that was not done when there were evidences of a lack of economy on the part of the administration. In my opinion the intelligence of the workers is such that they will recognise at once when there is not an exercise of economy in the higher branch of the service, and when that is so they become careless and let the work slip. In my opinion, at Addington there is not that evidence of economy. On the other hand, there is evidence of extravagance in the way of putting machines into the shop that could very well be done without, while the every-day working-machines which are to be found in almost all the other shops in New Zealand are kept out of the Railway shop. I know that in one Railway shop in the Dominion there is a set of rollers that I should say are fifty years old, and which are worked by hand—that is, in one of our shops. The method of doing work in that way will appeal to the Commission. I know, at Addington, that machines have been put in the shop that have done a remarkably small amount of work, whilst machines that are continued in use are machines that were there before my time, and before the time of the Chairman of the Commission. I would not say that they would find a place in any foundry or workshop where the work is supposed to be carried out under economical conditions.

"There appeared to be an utter disregard of the foremen's presence in any of the shops, the men being allowed to talk, loaf, and do a very indifferent day's work." I think that will follow. The foremen had responsibilities cast upon them of conducting the work under businesslike methods, but they had no power. Their power is robbed to a great extent, partly by the classification and partly by the men being assured of a constant job by the Superannuation Act, and also by the existence of the Railway Appeal Board. I know from hearsay, from foremen and from men, that men have spoken to their superior officers in a manner that would not be tolerated in outside or private employment. I do not want this for one moment to apply to the boiler-shop. I do not think it ever existed there. If a man attempted to speak to Mr. Henderson in such a way as I have heard men have spoken to officers, Mr. Henderson would at once report him, and steps would be taken. I do not think it will be found that the requisitions sent forward to the Department by the administrative heads have been given effect to. I recollect asking a manager why a certain machine had been brought into his shop, and he said he did not know. They did not know that this machine was coming until it was put in. That does not apply to Addington particularly. Machines are brought into shops irrespective of what is recommended by the foreman and perhaps the Manager. They have been put in, and such machines are of no use very often. I have also asked that the shop-managers should be able to engage and dismiss men. That is not a matter for me to deal with; but, to my mind, if the foreman of a shop is responsible for turning out the work in an economical and workmanlike way, he should have power to say what workmen he shall have and what workmen he shall dismiss. With regard to what I have said respecting the Classification Acts passed by Parliament, I know the spirit in which those Acts of Parliament were passed, and I know that they were passed very much in the interests of the men. I know that, when the last Classification Act was passed, one of the clauses which is giving discontent was passed in the spirit that both Mr. Ronayne and myself and the foreman who interviewed Mr. Ronayne at the time agreed to; but I know that the Act is read in quite a different manner to that, and is not read in the spirit in which Parliament passed it.

As regards the cost of work at Addington compared with elsewhere in the Dominion, of course I cannot speak; but, as I said in opening my remarks, I have been met with that charge from the Railway Department when a matter regarding Addington has cropped up. I can only say to my knowledge from hearsay that in the carpenters' shop work is done in Addington in a much better and stronger way than it is in other Railway shops in the Dominion. That, I think, the Commission will find out if they get the men to speak. In the construction of carriages, in putting the ends of the carriage together, panelling—I think it is called—is carried out at Addington, whilst in other shops that is not done, but pieces of wood are nailed on. That goes to increase the cost of the construction at Addington.

My only object in coming forward is to show that I have the interests of the Railway service at heart; but I have the interests of the Dominion still more at heart, and I want to see the work of this Dominion done in a workmanlike and good manner; and, if this Commission goes to work on the lines on which they have started, the result of their labours will be that we shall have work turned out of the Railway shops that will compare favourably with shops anywhere, and the principle of State control in this matter will be recognised as the proper method of turning out State work.

1. *The Chairman.*] Do you consider that the foremen, especially in the boiler-shops, have too much clerical work to do?—I do.

2. You think the clerical work should be reduced, or the foremen be afforded more assistance?—Yes. I say now, in order to put Mr. Henderson right in case he should be tackled with this, that it is not on his words at all I am going. I know what hours he has in the office, and I know that such work would not be put on any foreman in a private shop outside.

3. You are aware that discontent exists amongst the men in the shops, and that this results in the work being turned out in a less economical manner than otherwise would be the case?—Yes; there are other causes, too, of course.

4. You think the work is not carried out as economically as it might be?—That is so.

5. You mention extravagance in putting in new machinery in the shop when really some of the older machines should be replaced?—Yes.

6. Can you give instances?—Yes, I can; but I would much rather the Commission should find out for themselves. I should say that the last occasion on which I had this brought under my notice was at Petone; there is a set of rollers at Petone which must be fifty years old. They are worked by hand, and take two hours and a half to roll a small cylinder. Within the last few weeks a machine was put in at Addington which must have cost £250, and is only worked one day in three weeks.

7. What machine do you allude to at Addington?—I think it is a milling-machine.

8. You mention that the foremen and managers have no power of control over the men—they are unable to engage men or dismiss them?—They have not that power. I have held all along that they should have that power.

9. You mention that the men speak to the officers in a manner which would not be tolerated in outside shops: will you give us an instance?—I prefer not.

10. You also mention that the foremen and managers are not consulted with respect to the new machines which are placed in the shops?—I have been assured by the foremen that that is so.

11. Will you give instances?—I do not think it is wise to give instances. They may be so rare that the Department may be able to trace the source of information. I got it in confidence, and, such being the case, I do not think it is wise to give it away.

12. *Mr. Niven.*] You told us you never used the words "Government stroke"?—Yes.

13. Can you tell us what the words "Government stroke" mean? Is it a quick stroke or a slow stroke?—I assume it was intended to convey the meaning that the men took things fairly easy.

14. The usual meaning is "slow stroke"?—Yes, I should say so.

15. *Mr. Roberts.*] In what way is the accumulator in the boiler-shop defective?—As far as I remember, the present accumulator was in position with the old machine; therefore, if the new machine takes more water, it is not sufficient to keep the present machine going at anything like its fair pace. I do not say that that was the entire cause of the slowness of the work. The gantry has as much to do with it as anything.

16. What is the defect in the gantry?—It is out of date, and the keeping of the boiler in a proper position for putting the rivets in must be deterred very much by the gantry in use.

17. How is it operated?—By the old-fashioned chain.

18. You have referred to the subject of working with the hydraulic riveter: what speed do you consider the hydraulic should accomplish?—Very much quicker than an average of one rivet per five minutes, anyway.

19. You do not commit yourself to any specific number?—No. In some parts of a boiler it is necessary that time should be taken for the rivets to cool. On a longitudinal seam difficulty might arise by putting the rivet in too quickly. I think, however, that I was right in saying that the work was done too slowly.

20. How did you come to know that there was a great deal of discontent in regard to the Classification Act?—By interviews with the men. Any member of Parliament will tell you that that is so.

21. They have complained to members of Parliament?—Yes.

22. You have used the term "spirit of the Act": what do you mean by that?—Under the last Classification Amendment Act certain workmen who were engaged in a particular class of work were entitled to 6d. a day allowance in addition to the ordinary pay. The spirit in which that section was passed was that the skilled workmen, who were allowed to be competent by their superior officers to do their work, were entitled to 6d. a day allowance. I have, however, found that the Act was read in such a way that these skilled workmen were paid the extra 6d. a day only for the actual time at which they were engaged on the work of laying-off. I hold that that 6d. a day was supposed to be given to these men because they were supposed to be competent to undertake that work when it came along. The other day I noticed that the Minister agreed that 6d. a day should be paid to the enginemen.

23. I think you stated that you learned from the Department that work at Addington costs more than in any other shop?—For the last twelve months or two years I have been met with such an answer.

24. Did you apply for that opinion?—No; I applied for concessions, and that was the answer I was met with.

25. Who made the answer to you that the work cost more at Addington than at other shops?—I cannot say that. Those are confidential matters.

26. I presume it would be some one in authority?—Yes. It is usual to go to some one in authority.

27. *Mr. Beattie.*] Do you think it is just to the Addington men to bring out the statements of departmental officers to the effect that the work of the Addington men costs more than that of the men in other shops, and yet refuse to give the names of the officers who made those statements?—I will give the names if I am assured that those who gave me the information would allow me to disclose their names.

28. Do you think it is just to make the statement and withhold names?—Yes. I have already said that I got this information in confidence from heads of the Department.

29. Do you recollect an interview you had with me about a year ago?—I may if you mention the particular circumstances.

30. You came to see me about a hand riveting-machine for which you were agent?—Yes; but I do not know that that should be brought up here: that was a matter of private business.

31. Do you recollect that at that interview you made very complimentary references to Mr. Henderson's work and methods?—I do not know that I made complimentary references. I think you will admit that on every occasion that Mr. Henderson's name has come up I spoke of him with unqualified praise.

32. In these interviews did you ever make any suggestion to me as to the necessity for an additional leading hand?—Yes, I recommended to you once that Mr. Hislop, Mr. Earwaker, and I think Mr. Ross should be appointed leading hands.

33. How long ago was that?—I should say two or three years ago. You may, of course, retort that Mr. Hislop went away and that Mr. Ross left the service immediately afterwards, and that Mr. Earwaker was made a leading hand.

34. Do you recollect how many years it is since Mr. Ross left the service?—Six or seven years ago.

35. Then your suggestion was made six or seven years ago?—The first suggestion.

36. As a result of that suggestion you said that Mr. Earwaker was appointed a leading hand?—I did not say it was really on my suggestion.

37. Mr. Earwaker was appointed a leading hand?—Yes.

38. Have you in any of these interviews with me suggested a second leading hand?—Yes.

39. When did you do that?—Times without number.

40. How many interviews did you have with me, do you think?—I cannot answer that question. We met pretty often. I do not pretend to remember how many interviews I have had with you, I have been with you so often.

41. Do you not know that questions regarding the staff are decided by the General Manager?—I know that the General Manager puts his name sometimes to letters which he has not carefully read. I saw a letter last week sent by the General Manager, and it was entirely in conflict with what the General Manager had told me just a little previously. I know that appointments go through the General Manager and through the Minister. No appointments can be made in any other way.

42. You have mentioned about the accumulator-pressure, and so on ?—I never mentioned anything about the pressure.

43. Do you know from your own observation how many accumulators there are in the Addington Workshops ?—No. They are not ample, that is all I know, from the remarks of the men working them and from my own observation.

44. What is the location of the new riveting-machine—is it anywhere near the old one ?—I should say it was somewhere about where the old one was.

45. Has the hydraulic pressure any further to go to the new machine than it did to the old one ?—I cannot tell you.

46. Do you know at what pressure the accumulators are worked ?—No. I do not claim to be an expert engineer in these matters. I am a boilermaker entirely, and as such have not taken the extreme interest in this that you appear to think I have done.

47. You have mentioned the fact that at Addington the carpenters' shop does work of a more substantial character than other shops ?—As far as my knowledge goes.

48. Is that from observation or from hearsay ?—I said my attention was called to the fact, and the work was pointed out to me.

49. Is the Commission to understand that you examined this work yourself ?—Not closely. As a matter of fact, I am not sure whether the work was panelling or tenoning.

50. This is somebody else's opinion, not yours ?—Yes.

51. Presumably you do not know that all the new carriage-work is done to standard drawings ?—I know it is supposed to be.

52. Do you know that in these standard drawings it is provided in detail for panelling, tenoning, and rabbeting ?—I should say that it would be.

53. But you do not know of your own knowledge ?—No. I have not gone into the blue prints as carefully as that.

54. You have mentioned that you were on particularly friendly terms with Mr. Henderson, the foreman boilermaker: do those terms still continue ?—Yes, I think so. I have heard here that on this point I have had an extreme divergence of opinion with Mr. Henderson, and that I have taken this method of getting back on him. I give that an unqualified denial. My relations with Mr. Henderson now are of the most friendly nature, and have been for the last thirty years. There is no man in the Railway service who for quality and capacity is more deserving of recognition from the Railway Department. I do not say he has not got recognition. There is not the slightest truth in the statement that there has been any scene, or any quarrel, or any words between Mr. Henderson and myself. I have not spoken to Mr. Henderson since Christmas or perhaps November.

55. Can you state the dates when you visited Addington Workshops within the last six months ?—No, I cannot tell you the dates.

56. Does one date happen to be during Carnival Week, when the shops were shut ?—Yes.

57. Then nothing would be working in the boiler-shop ?—I could not say. I should say there was.

58. Was the machinery going ?—I do not think so.

59. The riveting-machine would not be doing work, I presume ?—It may have been; I could not say. I do not remember the exact day I was in the works. It was one of the days in Carnival Week.

60. In your opinion work is done in Addington Workshops in a more substantial manner than elsewhere ?—That is my opinion, and it always has been. I have expressed the opinion to you that I thought too good work was being turned out.

61. Does that apply to the boiler-shop ?—No; I do not think too good can be put on a boiler that has to stand 250 lb. pressure.

62. Your remarks as to too good work being put in at Addington do not apply to the boilers ?—I did not say that at all. I say that, taking it generally, the work is too good.

63. I am asking about the boilers. You said it could not be too good ?—I said that on the boilers of the X engines too good work could not be put in. I would not say that all the boiler-work is done too well at Addington. Some can be done well and more economically.

64. You are not in a position to say what machine it was at Addington which was new and practically unused ?—I called the attention of the Commission to an old machine which was at Petone, and I mentioned a planing-machine which has been at Addington for some years which has not earned its oil.

65. Where is that machine at Addington located ?—Inside the door of the fitting-shop. I should say it was got from Mr. Anderson if I remember its history aright.

66. It is a planing-machine of considerable age ?—It has been there quite a long time, to my own knowledge.

67. Your powers of observation in regard to the work are considerable: have you noticed that that particularly large planing-machine did particularly large work at any time ?—No.

68. Is it within your knowledge that there is a certain class of work done on that machine that could not be done on any other machine in the shop ?—No, it is not within my knowledge.

69. Then your statement was made without full knowledge of the capacity and requirements of the machine ?—I do not claim to make the statements I have made on full knowledge.

70. Your statement about this machine is made without knowledge of the class of work that is done on it ?—Yes.

71. You also made a further statement, so I understood, that there were no pneumatic hoists at Addington ?—Yes, as far as my knowledge goes.

72. Does the particular question of the height of the riveting-machine appeal to you as being awkward or convenient ?—I do not wish to express an opinion.

73. *Mr. Hampton.*] You have already admitted that you visited Addington Workshops early in November?—Some time in November.

74. What was the object of your visit on that occasion?—Friendliness; chats with the men, and general interest.

75. Did you go there to chat with the men and keep them from their work?—No.

76. The object of your visit was chats with the men?—Yes; I may say I was there during the dinner-hour.

77. You were not there only during dinner-hour?—No, I was there after 2.

78. What for?—General interest.

79. Are you the expert referred to by Mr. Ronayne in his communication to the Chief Mechanical Engineer?—I do not know.

80. Have you ever had any interviews with Mr. Ronayne?—Quite a number.

81. Within the last few months?—Yes.

82. When was the last one?—Probably a fortnight ago.

83. Do you think you are the individual whom he referred to as the “expert engineer”?—He refers to some of my statements in that communication; I know he uses some of my words.

84. Are there any statements in Mr. Ronayne’s letters which you have made to him?—Yes.

85. Which are they?—The reference to “five minutes per rivet.”

86. You told Mr. Ronayne that you saw the boilermakers taking five minutes per rivet?—Not in that way.

87. In what way?—Speaking of the appliances and the want of power from want of water in the accumulator, and the excessive expense that had been put on, I expressed the opinion that I thought the result of five minutes per rivet was not sufficient. I thought that would not bear out the motive in putting such an expensive machine into the shop and endowing it with such up-to-date appliances.

88. You blame the machine?—No, the machine is a remarkably good one.

89. Do you blame the men?—No.

90. You thought the men took too much time to put the rivets in?—Yes.

91. And you told Mr. Ronayne so?—Yes.

92. And you went to Addington on a friendly visit?—Yes.

93. After going there on a friendly visit, and chatting with the men, you go to Mr. Ronayne and tell him that the men are idling their time and taking too long to put in the rivets?—Because of the appliances.

94. Is your idea of a friendly visit this: that you go and watch your old shopmates working, and then go and have a communication with the General Manager, saying that they are taking too long over their work?—I do not think you are putting it in a fair way.

95. What other position can you put it in?—I have my own opinion about the present system of carrying on the shops, and it is only by going to the shops and keeping my eyes open that I am able to get impressions in regard to the system.

96. The men do not take too long to put the rivets in?—The rivets are put in by the men with the appliances at their hand. The rivets are put in too slowly; therefore the men are taking too long to put the rivets in. But it is not the men’s fault; I say now that the appliances to the machinery constitute such drawbacks and obstacles that they compel the men to take too long with their work.

97. You throw the whole blame on the appliances?—Certainly.

98. The men are in no way to blame?—Not at all.

99. You admit making that statement about five minutes per rivet?—Yes.

100. Are you an expert engineer?—I cannot say.

101. How long have you worked at boilermaking?—Twenty-five or thirty years—sufficient to enable me to know that work is done under good or bad conditions.

102. By trade you are a boilermaker?—Yes.

103. You are not an expert engineer?—No.

104. You make no claim to be such?—No.

105. This expert engineer said this: “He was astounded at the slow method and leisurely work of the men generally, but more especially those in the boiler-shop.” Have you expressed anything on those lines to Mr. Ronayne?—Somewhat on those lines, but that gave a different meaning. I said that the slow method was due to the appliances the men had to use.

106. You went to Addington to have a friendly chat with the men, and then you told Mr. Ronayne that you were astounded at the slow method and leisurely work done?—No, I did not.

107. Did you or did you not say that the men worked in a slow or leisurely manner?—I do not know. I found that the discontent in Addington at that time was such that there was very little wonder that the work was not turned out as cheap as it should be.

108. What was the discontent about?—There was extreme discontent about classification.

109. How did you find out about the discontent?—By the men interviewing me. Several men at the works spoke to me about this particular classification, and I rather fancied I made an appointment with two of them to meet me in the evening and go more exhaustively into the question.

110. Who were they?—Mr. O’Brien and Mr. Ruddle.

111. You said all your chats were with them in the dinner-hour?—Not necessarily.

112. You went there to keep them from their work?—No.

113. Do you not think that chatting with a man who is at work is calculated to interfere with his work?—No. I never found the men to resent it very much. In a boiler-shop the nature of the work is such that the men are bound to stand still at times, and by an outsider it might be thought that those men were idling their time, but to a man who is acquainted with the character of that work that would not so appear. At such times the men would have time to chat.

114. Then, in this memo. occurs the sentence, "The men in the smiths' shop were also doing a Government stroke" ?—I never said that at all.

115. You heard what Mr. Ronayne said ?—Yes.

116. That these statements were substantially what were told him by the expert ?—Yes.

117. And you believe the expert referred to was yourself ?—He may have had other advice, or he may have inferred from what I said that the men were loafing where I did not imply that at all.

118. The men were not loafing ?—As much loafing is done there, I suppose, as anywhere else.

119. Did you see any loafing on the occasion of your visit ?—No.

120. Another statement of this expert, as given by Mr. Ronayne, is this : "There appears to be an utter disregard of the foremen's presence in any of the shops, the men being allowed to talk, loaf, and do a very indifferent day's work." Have you said anything like that to Mr. Ronayne ?—Those are not my sentiments at all.

121. You are quite satisfied, from your visit in November last, that the men at Addington Workshops were not loafing ?—I am prepared to say that loafing was not going on. I say that at Addington there are some men who take it remarkably easy ; but to class the whole of Addington in that category as the memo. does, or even a majority or a goodly number of them, is absurd.

122. It is absurd to say that the men at Addington are idlers and loafers ?—Yes.

123. You have been there very frequently ?—I go there about twice a year ; but my firm opinion is that there are just as few loafers at Addington as elsewhere.

124. Have you seen any men taking things remarkably easy at Addington ?—Yes.

125. You admit that you have waited on Mr. Ronayne these last few months ?—Yes.

126. Can you give us any indication of how long the interview lasted ?—I should say about half an hour.

127. During the course of that interview you were telling Mr. Ronayne how satisfied you were with the work that was carried on at Addington ?—Other points came up.

128. How long were you interviewing Mr. Ronayne, and what were you telling him against the men ?—I will not answer that.

129. You say you were not saying good of the men : what were you doing ?—Both Mr. Ronayne and I have told you that I spoke very highly of Mr. Henderson and of Mr. Wilson, a fitter. I approached Mr. Ronayne on behalf of Wilson and Watson, to get the extra 6d. a day, and I was met with the statement from Mr. Ronayne that Addington was not doing as well as it should.

130. In that interview with Mr. Ronayne did you make any complaints whatever against the men ?—I do not know that I did. I do not think I did.

131. You make that statement in face of what Mr. Ronayne said this afternoon, that that letter contained what an expert said ?—Yes.

132. You think Mr. Ronayne has taken a wrong inference from your remarks ?—Yes.

133. It is incorrect that you made any complaint against the men ?—Yes.

134. You have nothing against the men ?—I said before that there are men at Addington who are not doing quite as much as they might.

135. That is the result of your observation ?—Yes.

136. In what department are these men ?—I won't say that.

137. Do you believe that you made any statement to justify Mr. Ronayne writing that letter ?—I should say that the statements I did make were sufficient to convince Mr. Ronayne that things were not going right in Addington, because I told him there was extreme discontent, and that the method of doing work was slow. In consequence of complaints I had made to Mr. Ronayne, and the knowledge which he and others had expressed in regard to Addington, he may have thought it necessary to bring the subject immediately under the notice of his inferior officer, and accordingly sent the bald statement just in the same way as a private employer might to one of his heads of department about which a complaint had been received. He would never expect that it would go past the Mechanical Engineer or beyond the manager and foreman. It was drawing the attention of the Chief Mechanical Engineer to the fact that there was something wrong and asking him to inquire into it, and if that wrong existed to redress it, so that the work would be done in an economical manner. I do not blame Mr. Ronayne particularly for sending out a memo., because he firmly believed it would not be made public.

138. Is it not a fact that you visited the shops and afterwards interviewed Mr. Ronayne little thinking it was to be made public, and that you would afterwards have to refute or prove it ?—I have not said anything of that nature.

139. You mention the fact of men speaking to officers in an insulting manner : have you any personal knowledge of such conduct on the part of the men ?—I have already said that it was hearsay entirely.

140. Have you ever heard a man speak in an insulting way to a foreman ?—In a general way, yes.

141. When ?—I will not say.

142. You still adhere to the statement that Mr. Ronayne is wrong when he says that those words regarding loafing and Government stroke are practically yours ?—I say Mr. Ronayne is mistaken.

143. What led you to come here to-day ?—I want to put myself right about what I did in the matter, and I have already admitted that some of the words in the memo. were words of my own, and in consequence of that I thought it was right that I should come. Any public man who can bring matters into a better state than they are at present should come forward. I am only anxious that a better system should be brought into vogue.

144. You have seen a statement in the newspapers that you were the man who interviewed Mr. Ronayne ?—I should say that such a statement had not been published. I would take the first opportunity of bringing that paper to book.

145. Are you an expert or not?—I do not know.

146. *Mr. Niven.*] You told us to-day that on several occasions you recommended more leading hands, and that in some cases they have adopted your recommendation?—No, I did not say that.

147. You have recommended them?—Yes.

148. In what capacity did you do so?—As one who has the interests of the works at heart, and in the interests of the Dominion. I have always taken a great interest in Addington and in the men, and thought I was justified in making such recommendation.

FRIDAY, 12TH MARCH, 1909.

JOHN GORDON FORBES, Foreman Boilermaker at Petone, examined. (No. 3.)

1. *Mr. Beattie.*] Did Mr. Jenkinson visit the Petone Workshops on the 19th January?—He did on that date or thereabouts. I can identify the date by the appearance in the Press of the letter of the General Manager. The day that Mr. Jenkinson visited Petone was the day previous to the appearance of Mr. Ronayne's letter.

2. Mr. Ronayne's letter appeared on the 10th January, so that Mr. Jenkinson's visit would be on the 9th?—Yes.

3. Did Mr. Jenkinson make any remarks to you when he visited the Workshops?—Yes.

4. Will you tell the Commission the nature of those remarks?—They were in the nature of a comparison between Petone and Addington Workshops, as regards the activity and general appearance of the Workshops—that they appeared to be very slow in Addington, and that we appeared to be alive at Petone. He and I worked at Addington years ago together, and Mr. Jenkinson said the place was not anything like what it was when we worked there, and that at Addington now they were practically asleep, and we were alive.

5. Did Mr. Jenkinson make any remark about Foreman Henderson?—No, he made no personal remarks.

6. Was this reference of Mr. Jenkinson's to the sleepy nature of the work directed with regard to the men?—I could not answer that. He appeared to think that the whole system at Addington was slow in comparison with Petone, but whether it was in regard to the management, or the work, or the men I do not know.

7. Did he give you any details at all?—No, just a general remark that they appeared to be slow at Addington in comparison with us.

8. How long is it since you worked at Addington?—I left Addington in 1896. I went from there to Wanganui, and from Wanganui to Petone.

9. From Mr. Jenkinson's remarks, did you understand that he had recently visited Addington?—He told me distinctly he had visited Addington about a week before. When he made the remark about Addington being slow I asked him whether he had been down there recently, and he said, "Yes, I went there about a week ago."

10. Did he make any remark as to whether he would present a report to anybody?—No, he made no remark of that kind. The only remark that would lead me to believe that he was on an inspecting tour was when he shook hands and said, "Well, I will go and have to do a bit more." Mr. Brooks was with me at the time, and Mr. Jenkinson went from where we were standing (where the vices were) and went and looked along another row of vices and proceeded right through the shop. From our shop he went to the tarpaulin-shop, looked in there, and from there to the moulders' shop, and then we lost sight of him. He also looked into the bogie-fitting shop. Mr. Brooks seemed to pick him as being on tour also by the way he went about.

11. Has Mr. Jenkinson been in the habit of frequently visiting Petone Workshops since you have been there?—He has been there, I think, about six times—it might be more.

12. The impression he left on your mind was that he was unfavourably impressed at Addington?—Undoubtedly. I could take nothing else from his remarks.

13. *Mr. Niven.*] You have worked both in Addington and Petone shops?—Yes.

14. In the same position—foreman boilermaker?—No, I was an ordinary working-boilermaker in Addington.

15. Was it your impression that Addington was slow when you were there?—No.

16. How did it compare with Petone?—Every bit as good, and better.

17. *Mr. Hampton.*] From the remarks Mr. Jenkinson made to you, you and others inferred that he was the expert engineer mentioned in Mr. Ronayne's letter?—That is so. I am still of that opinion.

HARRY HUGHLINGS JACKSON, Locomotive Engineer, Hurunui-Bluff Section, examined. (No. 4.)

1. *Mr. Beattie.*] What is your position?—I am Locomotive Engineer in charge of the Hurunui-Bluff Section.

2. How long have you been in the Railway service?—Since 1876, I think.

3. For what length of time have you occupied your present position?—Since June, 1900.

4. The Addington Workshops are under your charge, together with Hillside and Invercargill?—Yes.

5. Are you frequently around the Addington Workshops?—Yes. Of course, I may say that fully one-third of my time is occupied in travelling about to Dunedin, Invercargill, Queenstown, and various places, and usually after a fortnight's trip there is a good deal of correspondence to attend to, and I cannot spend as much time in the shops as I would like. But when I am in Addington I am in the shops a good deal at all hours, and, of course, drop in in all sorts of quarters.

6. During your charge of the Hurunui-Bluff Section have you seen any evidence of loafing or inattention to duty at Addington?—Well, of course, where you have 630 men employed you are bound to find somebody occasionally idling, but taking them as a whole they are a very fine body of men, and no more idling goes on at Addington than anywhere else. In fact, if idling goes on there I give the man who does so credit for being pretty clever. The foreman there would not tolerate anything of the sort for a moment. From time to time cases have occurred, and reports have been sent to headquarters and the men suitably punished. As far as I am personally concerned, no case, no matter how trivial, has been passed over. All cases have been dealt with in a suitable way.

7. Coming now to the boiler-shop in particular, against which certain charges have been levelled, have you any reason to suppose that the boiler-shop is less efficiently supervised than the others?—No, I am quite satisfied it is efficiently supervised. In fact, if anything, I think Mr. Henderson is a little bit harder on his men than any of the other foremen.

8. With regard to the discipline at Addington Workshops, can you make any statement?—As far as my own personal knowledge goes, the discipline is quite satisfactory. Any cases of discipline which are considered not to be up to the mark, on being reported, are dealt with in a suitable way.

9. Do you consider the output of work at Addington satisfactory?—Perfectly satisfactory, in my opinion.

10. There was a reference made yesterday to a machine which was thought by the witness to be a milling-machine, which had been installed at Addington, and which was stated to be practically unused?—That statement is quite incorrect. There is no machine at Addington which is never used, because we could do with more machinery than we have got. The machine which was referred to was the new radial milling and drilling machine, which cost considerably over £1,000, and it is practically in regular use.

11. There was reference made yesterday to a large planing-machine which has been at Addington, according to the witness, for many years, and which was stated to be of very little value to the Department?—The machine I understand that was referred to is the large planing-machine inside the main doors. This machine is used for special work that no other planing-machine in the shops of the Government Railways can do. All the large turntable centres, weighing 6 tons, have to be done there, and other large jobs. I can say that, at any rate for the last eight years, that machine has been in regular and constant use. On many occasions it has been worked both day and night. It certainly never stands idle.

12. You regard it as an essential machine?—I regard it as a really valuable machine for the class of work we have for it. In fact, we could not do without it.

13. Can you give the date when a boilermaker named Ross left the service?—It would be in 1899. It was before I was transferred to Addington.

14. Can you state when Earwaker was appointed a leading hand?—July, 1900.

15. And he is still leading hand in the boiler-shop?—Yes.

16. Mr. Jenkinson also mentioned a boilermaker called Hislop—is he still in the service?—He retired on superannuation some time ago.

17. Mr. Jenkinson stated yesterday that he had not seen any pneumatic hoists in the Workshops. Can you state the position?—I cannot tell you how many there are, but there are dozens and dozens. Every large machine has pneumatic hoists, and in the points and crossings shop there are four, but they are so arranged as to cross from side to side and serve all the machines, and also be used for any material that has to be raised from the trucks. Most of these, I may say, are locally made lifts, but we have some imported lifts.

18. From your own observation have you noticed that it is somewhat tedious to get certain rivets closed in awkward corners of boilers?—Undoubtedly it is.

19. And it is quite possible, when operating on a difficult corner, that some minutes may elapse between fixing one rivet and the next?—In awkward corners it may take five minutes where they have to lower or twist the boiler—that is, from the first start of the operation until the snips are released finally.

20. That, of course, only refers to awkward places?—Yes.

21. With the general run of boiler-riveting are you satisfied that expedition is being shown? As far as the men are concerned I am quite satisfied that they are putting in a fair number of rivets per day—approximately two hundred rivets for eight hours. That is working on $1\frac{1}{8}$ in. rivets, when the snips cannot be released immediately. The machine has to be held on to allow the rivet to cool slowly in order to get a close joint. With a 250 lb. pressure on a boiler you have to be careful.

22. The statement was made yesterday that ninety rivets was the day's work: is that correct?—No.

23. Would it be of assistance if you had the hoisting arrangements electrified for the lifting-power?—Undoubtedly.

24. Would it be of assistance if the hoisting arrangements generally were electrified?—Oh, yes! it is a thing badly needed.

25. It is a matter you have discussed from time to time?—Yes, it has been discussed during the last seven or eight years, and the question has been brought up on paper on two or three occasions; but I know it is fully seven years ago since the question was first discussed. A price was obtained for electrifying the cranes.

26. With regard to staffing, have you any difficulties in the way of obtaining staff, or the method of obtaining staff?—The present arrangement is undoubtedly too cumbersome. From the time you ask for the staff to the getting of the men at work sometimes months elapse. If you wish it I could give particulars of the system. The position is this: If I require any additional staff—that is, new hands—I correspond direct with the Chief Mechanical Engineer, and I presume, if he is satisfied that those extra men are necessary, he forwards his recommendation to the General Manager.

27. *The Chairman.*] Do you ask for additional staff on your own initiative, or does it come through the foremen?—I get reports from the Workshops Manager that he thinks extra staff is necessary, and then I take the matter in hand for the first time.

28. *Mr. Beattie.*] And what happens after you get the request?—I apply to the Chief Mechanical Engineer, and after that I have my instructions from the General Manager's office direct. They probably write down and tell me that this extra staff is approved or not approved, and at the same time they send me a list of fitters, turners, blacksmiths, labourers, giving me the names and addresses, and I have to communicate with these persons in the order in which they are named on the list. It may happen that the first on the list is dead—I have known such a circumstance—the second on the list may be out of the country, and the third may be in a regular job and does not want the work, and so the operation goes on until I find some one who is willing to start work. This man is then given a start, and after he has been at work for three weeks he is reported on, and if his work and conduct up to that time is not satisfactory he goes. Then the same operation has to be gone through again, starting with the next man on the list. You can therefore see that it frequently takes a very long time before we get the staff that we actually require, and in the meantime the work is not going on as it should do. Then, with regard to filling vacancies, I deal direct with the staff office. When a man is retired on superannuation or dismissed, and I want a man to take his place, I write to the General Manager's office, and I am frequently told that it is not intended to replace this man; and if I think he is absolutely required I have to return to the charge from time to time, and sometimes have to write to Mr. Beattie to assist me to get this vacancy filled. Of course, the General Manager cannot be expected to see to these continual applications for labourers and so on, and the matter must necessarily be left to somebody in the staffing office, and this is the person I have usually to correspond with as regards staff. Occasionally, when we get a new machine and I want a man to work it, I am told to take a man off another machine. I protest, and say it is no use getting a valuable new machine and having no one to work it. A new machine is put in to enable us to turn out more work, and therefore requires additional staff to work the machine. There is one other matter I might mention. Of course, the Classification and Superannuation Acts have to be considered in connection with this matter of appointments. If there is a vacancy, say, for a holder-up or a striker, we have to try the most suitable labourer, and occasionally we have to try a good many before we get the vacancy filled. In fact, there are cases where it has taken months to fill a vacancy of that sort. Some men will not accept the higher position, and others are tried who are found to be quite unsuitable. Altogether in that direction the staffing arrangements are too cumbersome.

29. If you had the authority to engage casual labour as required within certain limitations as regards expenditure, and authority to pay off casual labour when not required, would that facilitate your work?—It would undoubtedly, but I consider that authority should be given to the Workshops Manager. I am often away for a fortnight, and frequently a fortnight's delay is serious. Considering the way we are pressed to push on with the new locomotives a fortnight means a good deal.

30. If you had local authority in connection with casual labour it would facilitate the work?—Undoubtedly. There is one other point I might mention, and that is in connection with getting rid of the staff. That also is rather a cumbersome method in my opinion. I consider that if we find it is necessary to shorten staff we should be able to do so immediately. But at present we have to correspond with the Head Office, and sometimes delays occur. Also, there are certain limitations in paying off men. Single men have to go first, and married men have then to be considered. It frequently happens that amongst the single men are some very excellent hands which we are unable to retain.

31. There was a statement made yesterday by Mr. Jenkinson that an additional leading hand was essential in the boiler-shop?—My opinion is that such is not required. We have a foreman boiler-maker and a leading hand. There are two classes of work that have to be undertaken—one is new work; the other is repairs. My own opinion is that two men are quite able to look after this work.

32. There was some question as to Mr. Henderson's time being too much occupied with clerical work?—I know from my own knowledge that he cannot have much clerical work to do, and if he wants any assistance he can always get it. Mr. Henderson has never complained, as far as I am aware, about having too much clerical work to do, and I do not think he has too much to do. I may say that from time to time additional leading hands are appointed, and the appointment of others is now under consideration. As the work increases, the number of leading hands is increased.

33. Coming to the relative cost of building locomotives at Addington or in a private foundry, and assuming that the private foundry devotes itself nearly exclusively to the building of locomotives, would you consider the private foundry had an advantage in being able to turn out the work?—In my opinion, where you do new and repair work in the same shop, there is bound to come a time when one or other must suffer, and any officer who has any respect for his reputation will see that repair-work is kept up, because if the rolling-stock is allowed to get into bad order, and the general public is affected, there is trouble immediately. As a matter of fact, for years past the Hurunui-Bluff Section has been so short of rolling-stock that before an important holiday, such as Carnival Week, Christmas, or Grand National Week, it has been necessary to turn out every engine from the shops. That means that for three or four weeks before all the big holidays we have to concentrate our energies on repair-work, and very often the new locomotive work has to suffer, and sometimes seriously.

34. Can you state the net cost of labour and material for the three A engines?—The three A locomotives under discussion were built for—wages, £2,531 4s. 4d.; material, £1,779 0s. 2d. That is a total of £4,310, and in that is included the cost of fitting the Westinghouse brake (£210), and the cost of painting (£38). Thirty-eight pounds is our cost of painting, but the contract people only paint in lead colour, which would probably run into £18 or £20. That means that the total cost of our locomotive was £4,310, and if you add to that the profit or commission which we charge on our locomotives—namely, £647—it brings the total cost of the engine up to £4,957. The percentage we charge as profit or commission is 15 per cent.

35. The contractor does not fit the Westinghouse brake, so that the net cost for labour and material of the A locomotive at Addington is £4,062?—Yes.

36. Add to that £20 for preparation and painting done on the contract engine, and it makes £4,082 as the cost of the Addington engine in precisely the same condition as the contractors' engine is delivered?—That is so.

37. What is the price of the contractors' engine?—£3,998.

38. That makes a difference of £84 in favour of the contractors' engine?—That is so. I would like to say here that we do a large amount of work for the contract locomotives. We do the whole of the wheels and axles, and fit the crank-pins, which is a pretty large job, and for which we charge practically the net cost. We make nothing out of the amount charged to the contractor for these wheels and axles. In addition to the wheels and axles we supply all the bronze castings, we make all the lamps, we make all the bearing-springs, and we supply numerous forgings.

39. Has it happened that you have to take gear off engines at Addington in order to keep the contractor supplied?—Yes. In connection with the three locomotives that have been brought under discussion, the wheels and axles that were already prepared—and, speaking from memory, I believe one set was really under the engine—they all had to be sent to the Thames because the material ordered by Price Bros. had not arrived. I may also say that, from the time the first lot of wheels and axles were supplied to Price's, we were almost every week urged to keep on sending them stuff, and this had to be done to the detriment of our own work. Frequently gear had to be taken out of machines in order to enable us to push on with the work for Price Bros.

40. From time to time, as similar work is done at Hillside and Addington, you, I presume, prepare costs in detail?—That is so.

41. Do you find that either of these two shops is always ahead of the other, or does it vary?—It varies. In some cases Hillside does the work cheaper than Addington, and the reverse is the case at other times.

42. Do you consider the points-and-crossings shop a thoroughly efficient shop?—Yes, I think it is really the most up-to-date shop we have.

43. Is it within your knowledge that the price at which you can manufacture points and crossings at Addington at a profit is a lower price than that of tenders from outside firms which have been received in recent times?—I know that some months ago tenders were called for 100 sets of points and crossings. We were extremely busy, but the prices were so very much higher than ours that no tender was accepted. The lowest tender, so far as I remember, with the rails supplied, was at a much higher rate than ours, including rails and labour.

44. Therefore, although we were pressed for points and crossings at that particular time, it was considered desirable to make them ourselves rather than pay the enhanced price outside?—That is so.

45. Do you consider that the changing of the staff from new to old work is a handicap?—Undoubtedly.

46. In other words, it is a handicap to have to do both new manufactures and repair-work in the same workshop?—In my opinion it is a great handicap.

47. Can you state the organization at Addington?—Under myself there is the Workshops Manager, seven foremen—one in charge of each branch, a foreman blacksmith, a foreman boilermaker, a foreman carpenter, a foreman painter, a foreman moulder, a foreman fitter, and a foreman in charge of the new locomotive works and the points and crossings. Under these foremen there are numbers of leading hands. As the work increases, leading hands are appointed wherever it is considered necessary.

48. What is your opinion with regard to the efficiency of the plant and appliances?—We have some very fine machines at Addington, but we are undoubtedly deficient in some respects. For instance, our lifting-gear is certainly not up to date, and in my opinion our power appliances are also behind the times. Representations have been made on more than one occasion in both these directions, but I have always understood that it has been a question of money. Some eighteen months ago strong representations were made about remodelling the machine-shop, but up to the present nothing has been done in the matter.

49. What is your idea with regard to an improvement in the lifting appliances?—I think electric cranes would be found most suitable. If electric power was installed to drive the machinery and the cranes a very large saving would be effected. There is no doubt that many of those old boilers we use burn a tremendous amount of coal, and a very large saving could be effected by doing away with them altogether.

50. So far as your knowledge goes, do you think the system of work adopted at Addington is satisfactory?—I think the system of distributing and laying out the work, and so on, is satisfactory. That is, of course, under the control of the Workshops Manager.

51. In the case of a pressure of work, would you recommend an increase in the number of men and the amount of machinery, or would you be in favour of running the existing machinery on an extra shift temporarily?—If the increase in work is only of a very temporary nature it would not be economical to purchase a large amount of machinery just for that short time; but where the work is obviously steadily increasing, and more machinery is wanted, I think it would be far better to provide it than to

work a night shift. I do not think you get the same amount of work on the night shift as you get from a day shift.

52. At Addington the Railway Department does all its own iron castings?—That is so.

53. Are you satisfied with the method of production and the results?—Quite satisfied. Until we had our own iron-foundries we were in continual trouble. We could not get the castings from the contractors, and frequently they were not as they ought to be. Now we can get the castings when we want them, and very often before. But under the old system we frequently had to wait weeks and weeks, and could not get on with the work at all.

54. Can you give the total number of the iron castings turned out in 1908, for instance?—We turned out at Addington 558 tons of castings.

55. On the issue rates of 12s. 6d. per hundredweight for castings over 7 lb., and 15s. per hundredweight for castings under 7 lb., does the Department make a clear profit?—Yes, usually we make a very good profit.

56. Will you explain how the Manufacturing Account is dealt with?—All labour and material is charged for, and we issue from the brass-foundry every description of ordinary brass castings at 1s. per pound, and the whole of our steel castings are issued at $1\frac{1}{2}$ d. per pound, and we make profits on all these amounts.

57. These Manufacturing Accounts are balanced up at the end of each financial year?—Yes.

58. And all repairs and renewals are charged to the Manufacturing Account?—That is correct.

59. So that the Manufacturing Account bears all the working-expenses of that particular branch?—That is so.

60. What is the issue rate of the 70 lb. points and crossings?—With an angle of 1 in $7\frac{1}{2}$, £25 10s.; with an angle of 1 in 9, £28.

61. Does that include the rails and materials?—Rails and materials, and in addition we have to pay for the upkeep of the machines, &c. That is all charged to the Manufacturing Account.

62. Will you give a comparative statement of the outside tenders which were received for the manufacture of points and crossings—i.e., exclusive of rails?—The Department was to supply the necessary rails for the making of these points and crossings, and the lowest tender for the 1-in- $7\frac{1}{2}$ angle was £30, and for the 1-in-9 angle £32 10s. per set.

63. That, of course, is exclusive of the rails?—It is practically for labour only. Another tender was received at £58 per set for both classes of these points and crossings, also exclusive of rails.

64. Can you state the aggregate amount of wages, with the number of men employed, at Addington?—For the financial year ending 31st March, 1901, the total wages paid at Addington amounted to £51,630 1s.; the number of employees was 458; and the average wage per man per month was £9 6s. In 1908 the wages totalled £73,899 11s. 11d.; 586 men were employed; and the average wage per man per month was £9 14s. 5d. I may say that from that date until the present time the average wage has gone up to £10 1s. 1d.

65. Would it be an advantage in the manufacture of locomotives if you were able to lay them down in sets of five or ten?—It would undoubtedly. I may say that, after very strong representations, authority was given to increase our construction-shop by 60 ft., and about twelve months later—that is, about July of last year—this addition was completed, and now we can practically lay down four locomotives where before we could only lay down one.

66. The Workshops Manager of the Newport Railway Workshops, Victoria, expressed the opinion before a Royal Commission that a saving of 25 per cent. in the cost of labour would be effected by building ten engines at a time as compared with building one or two at a time. Do you agree with that?—There is no doubt that a very large saving would be effected by doing the work in sets, but what that saving would be I am not in a position to say. I could not say it would be 25 per cent., but no doubt it would be a very large saving. It stands to reason that, if men in the various departments can do their work in continuity without having to drop one thing and take up something entirely different, the cost of construction would be very much cheaper. For instance, if you could afford to set up machines to do thirty or forty cylinders without stopping, you could save a great deal on the turning of cylinders alone.

67. Notwithstanding all these drawbacks, are you satisfied that the work has been done at Addington as expeditiously and as economically as could reasonably be expected?—I think so.

68. You are satisfied that the best has been done with the appliances at your disposal?—Yes.

69. *The Chairman.*] I believe you are directly responsible to the Chief Mechanical Engineer?—Yes.

70. After men have been taken on, do you communicate that fact to the Chief Mechanical Engineer or the General Manager?—My correspondence with the Chief Mechanical Engineer practically ceases after I make the application for the extra staff.

71. The foremen have no power to engage men?—None at all.

72. Has the Workshops Manager?—None at all.

73. You as Locomotive Engineer have no power?—No. The only staff that can be engaged without authority are day-to-day casuals, or men that are paid by the hour, and who come on for half a day for handling coal, and so on.

74. Suppose the foreman considers it desirable that a man should be discharged, has he power to discharge that man?—No.

75. Has the Workshops Manager?—No.

76. Have you?—No. I can merely report the matter and make a recommendation.

77. What is the routine followed if the foreman desires a man discharged?—If it is for any breach of the rules or anything of that sort, the foreman would mention the man's name, and after an investigation the report would be sent on to the Head Office with my recommendation.

78. It would not go to the Chief Mechanical Engineer?—No. With regard to staff matters, I take all orders from the General Manager's office, but within the last twelve months I have had instructions to send applications for extra staff to the Chief Mechanical Engineer.

79. So that, if a foreman considers a man is not doing a fair day's work in the workshops, and the Manager agrees with him, it is not an altogether easy matter to discharge that man?—It is not. You must have a clear case and absolute proof.

80. In every case in which it is desired to dismiss a man the case may be submitted for trial?—That is so. The foreman, the Workshops Manager, and myself have to stand the risk of a case before the Appeal Board, and we have to go forward, and be cross-examined and questioned, and stick to our guns; so that a very clear case is wanted.

81. Does this method decrease or increase the efficiency of the shops?—In my opinion it decreases the efficiency.

82. Can the foreman or the Manager fine the men for breach of discipline?—No; nor can they punish them in any way. That is all done from the Head Office. We have power of suspension. If a man commits a very grave breach of the regulations we can suspend him, but there our power ceases.

83. Mention was made yesterday of men speaking to their superior officers in a manner that would not be tolerated in a private shop. Has any such instance come under your notice?—I cannot remember an instance, and I do not believe any foreman or manager would accept such a position as that.

84. Have there been any cases where recommendations have been made by the officers that the services of a particular man should be dispensed with, and have those cases been investigated during your time?—I dare say such cases have arisen.

85. What has the decision been?—I do not know that I can call to mind any particular case, but it is quite possible; in fact, I know there have been cases where the recommendation for discharge has been made, and it has not been acted upon.

86. That is what I want to know. Are the recommendations of the officers always taken?—Oh, no! In many cases we make no recommendation at all; the facts are stated, and the papers sent on.

87. Do you know anything about discontent amongst the men because of the manner in which the Classification Act is administered?—Well, I think that when the amended Classification Act came into force the matters were not very clear. There was a good deal of correspondence with the Head Office about it before final arrangements were made to pay the extra allowance. In the first place, the payment of the allowance was very restricted, and was very awkward to deal with. I do not know, however, that there was any great discontent; but representations were made both by Mr. Richardson and myself, and so far as we were concerned the matter was put on a much sounder footing. When men are now engaged on the class of work for which the extra allowance is to be paid, it does not really matter what position the man holds—he is paid the extra allowance so long as he is engaged on this work. Previously one or two men in a large department had to be selected, and at certain times two men could not do the work, and half a dozen would be required. Now, however, we have practically a free hand, so that any man engaged on this particular class of work can be paid the allowance whilst he is on that work.

88. Are persons who are admitted to the workshops during working-hours permitted to discuss matters with the men?—No one should be admitted except on an admission-ticket, and this ticket notifies that visitors must not talk to employees.

89. That applies to visitors of every class?—Yes, except those who come down with a letter of introduction from the Mechanical Engineer, and whom either I or Mr. Richardson personally show round the shops. I may say I have seen people in the shops who had not a permit. That was some months ago, and I gave instructions that people of that description must be provided with permits and shown round the shops by some responsible officer.

90. Is there a fixed percentage which you add to the cost of labour and material to meet the cost of foreman's salary, supervision, and so on?—Yes; 15 per cent. on the cost of wages and material.

91. Is there any charge made for interest and first cost of plant, &c.?—That I cannot say.

92. Is there any allowance for depreciation of buildings?—I cannot say.

93. You make no allowance for the upkeep of buildings, or rent, or first cost of buildings?—So far as I know, that is not done. So far as points and crossings are concerned, the percentage is not charged. Sometimes we make a very large profit, and sometimes a much less profit. But the price quoted is the net cost of wages and material. Those other charges have to come out of our profit whatever it may be.

94. *Mr. Niven.*] Can you tell us roughly how many men are employed in the boiler-shop?—I should say that Mr. Henderson has to control eighty or ninety men.

95. Are they mostly casual men?—A large proportion are permanent; but at the present time there are a number of casuals. We are running a night shift in the boiler-shop, for which there is a leading hand; so that there are two leading hands in the boiler-shop at present.

96. Does the leading hand do actual work, or does he supervise?—Supervises only.

97. He is really a second foreman?—An assistant foreman.

98. Would you be prepared to say that the boiler-shop was a very much out-of-date establishment?—I would not say that the whole place was out of date, but I would say that it could be very much improved. It is not large enough. More room is required, and many of the appliances are certainly considerably out of date.

99. Regarding the lifting appliances, do you think that the present buildings could be adapted so as to carry electric cranes?—I think so; the boiler-shop could.

100. Take the machine-shop?—Well, of course, the roof of the machine-shop is very low. That is a shop really that should be remodelled before any other, in my opinion.

101. *Mr. Roberts.*] Have you had any experience of hand-riveting?—We do a good deal of hand-riveting.

102. Have you any idea how many rivets could be put in by hand on the average per hour—that is, the ordinary rivet you use in the locomotive-boiler shop?—Those rivets are $1\frac{1}{8}$ in.

103. They would be out of the question by hand?—Yes.

104. Do you consider that 200 rivets per day of eight hours is a fair output for an up-to-date machine such as you have at Addington?—I do, with the appliances that we have.

105. With better appliances you could do a larger number of rivets?—I am certain of it.

106. The machine is not working up to its full capacity in that respect?—I do not think it is.

107. Do you always get the class of labour you want?—Well, as I explained, we get a list from Wellington, and we have to take the men whose names are on that list in their order; and if a man is found unsuitable after a three-weeks trial we have to take the next man, and the whole operation starts again.

108. Can you pay these men off yourself?—Oh, no! We have to send the matter back again to Wellington.

109. That involves a considerable loss of time?—Yes.

110. Do you keep the time of the different jobs in the workshops?—No; the Workshops Manager has a timekeeper and a set of clerks.

111. Will you give an outline of the system of checking that is adopted?—So far as we are concerned locally, we have a time-sheet in which the men enter their time each day. That is supposed to be checked by the foreman and initialled daily. At the end of the week these time-sheets are torn out of the book, and in the Workshops Manager's office the time is taken out on to a second sheet, and those sheets are sent on to Wellington, where the accounting is done. There is no accounting done locally at all.

112. Is there any system of checking the odd work? If a man is on, say, side-rods, is the time for that kept separately?—No. There is an order for, say, the repair of a locomotive, and the time taken on that work, be it for axle-boxes, side-rods, or wheels, all goes down on that order.

113. There is no check on each particular man's work?—No, except that of the leading hand or foreman, who sometimes takes note of the time a man takes on a particular job.

114. There is no record which tells from day to day what any individual does?—No; to do so would involve a very elaborate system.

115. In the cost of points and crossings in your own shop that you gave, was the 15 per cent. included?—No.

116. Just the bare cost for wages and materials?—Yes.

117. Why do you not add the 15 per cent. on to the cost of points and crossings, as is done in the case of other work?—In all our Manufacturing Accounts we make a certain profit, which may be sometimes large and sometimes small. That is the method that has been in vogue for dealing with Manufacturing Accounts for many years. I do not know by whom it was instituted.

118. How would you compare the cost of points and crossings as turned out at Addington with what could be turned out in a private shop?—We can add 15 per cent. on to our price, and compare roughly.

119. Have you any idea what these points and crossings would cost if imported?—No; but I think particulars could be obtained.

120. Do you consider that the plant in the foundry is efficient?—I do not consider the lifting-appliances efficient—that is, the crane.

121. Can you give the rates of pay of the different classes of men employed in the shops?—There are practically three grades of leading hands, entitled No. 1, and No. 2, and "other leading hands," for which there is no number. The first-grade leading hands get 12s. and 12s. 6d.

122. That applies to all trades?—Yes. The second-grade leading hands get 11s. 6d., and the other leading hands 11s. per day.

123. What is the pay of the ordinary workmen?—Ten shillings and sixpence per day is the maximum pay, except for those who are engaged in marking off new work the minimum pay is 9s. 6d.

124. *Mr. Hampton.*] As Locomotive Engineer for the Hurumui-Bluff Section, I understand that you have the supervision of Hillside and Invercargill?—To the same extent as at Addington.

125. Do you frequently visit those works?—Yes, regularly.

126. What is your opinion as to the discipline at Hillside and Invercargill as compared with the discipline at Addington?—Practically the same.

127. Addington compares quite favourably?—Quite.

128. As regards the work, how do you think that compares?—I do not think there is any noticeable difference. As I said, in some cases Hillside does work cheaper than Addington, and *vice versa*. Hillside has certain appliances that Addington has not got, which enables them to deal with certain classes of work cheaper than Addington can do.

129. As regards discipline and work Addington compares favourably with Hillside and Invercargill?—Yes.

130. Have you ever had supervision of any other shops in New Zealand?—I have worked in them all.

131. In your opinion, how does Newmarket compare with Addington?—It is thirteen years since I was at Newmarket. When I was there they were a really fine body of men, and turned out good work; but I do not know that they were any better than other works I have had the control of.

132. Addington now compares favourably with what Newmarket was thirteen years ago?—I think so.

133. Do you know anything about East Town?—I was in charge there at one time.

134. What are your impressions as regards the discipline and work done there?—I think Addington is quite equal to any of them.

135. Have you ever had the supervision of the Petone Workshops?—Not directly. I have spent a good deal of time at Petone, but when I was on that section I was Travelling Locomotive Engineer. There was no Locomotive Engineer at that time on the Hurunui-Bluff Section.

136. You have seen a good deal of the work at Petone, and frequently visited there?—Yes, years ago.

137. In visiting Petone were you struck with the fact that the men showed a brisker movement than the men in the other shops?—No, I was not.

138. How does the discipline and work at Addington compare with what you observed in your visits to Petone?—It is more than nine years since I was at Petone, and then I had no direct charge of the men; but I am quite satisfied that the discipline was certainly not better than it is at Addington.

139. You did not notice this brisker movement?—Certainly not.

140. Have you as Locomotive Engineer ever in the course of your duties been brought into close contact with any of the workmen?—Not very close.

141. You must at times have had conversations with some of the workmen at Addington?—Yes.

142. Have any of these workmen with whom you have had conversations used insulting language towards you?—No. I must say that I have never had that experience during the thirty-two years and a half I have been in the Railway service.

143. Do you think that the certain amount of security of their position which is given to the men as the result of the Classification Act, and with the right of appeal, is taken undue advantage of by the men?—I do not think it is.

144. Could you tell us the number of men employed in the blacksmiths' department, including the forge?—I have not the number.

145. Do you think that in the blacksmiths' shop and forge 120 men would be too high an estimate?—I should say the number would be that or thereabouts.

146. How many leading hands are there in the blacksmiths' shop?—At present there are none.

147. You say that no one has used insulting language to you in the shops; but, supposing a man had, what would you do?—If the language was very bad, either he would go out of the service or I would.

148. Would you not report to the Head Office?—First of all I would suspend him, and then report to the Head Office.

149. Do you think there would be any difficulty in getting rid of a man who was reported for an offence of that nature?—I should not think so.

JOHN FRANCIS MCCARTHY examined. (No. 5.)

1. *Mr. Beattie.*] What is your position at the present time?—Workshops Manager at Newmarket Railway Workshops, Auckland.

2. How long were you Workshops Manager at Addington?—I took charge of Addington in April, 1901, and left in December, 1907.

3. What is your opinion regarding the allegation of loafing at Addington?—That charge never could be sustained during the time I was Workshops Manager. I am certain of that.

4. What experience have you had?—I have had experience on marine work, sawmill work, sugar-refinery—in fact, everything connected with an engineer's shop, both in Australia and in New Zealand.

5. How long have you been in the service?—The last time I joined was in 1884; but I had, prior to that, been about two and a half or three years in the service.

6. You know Newmarket, Petone, and Addington Workshops?—I have had charge of the three shops.

7. From your knowledge, have you any reason to suppose that the Addington workmen are less efficient than the workmen in any other shop of your acquaintance?—I think they are more efficient than those either at Newmarket or at Petone, for the reason that the men at either of the two last-mentioned places do not get the same experience in regard to new work that the men at Addington do. If a man works here at Addington for ten years he must be a far better man than could be turned out at Petone or Newmarket—that is, a man who has been on the new work. As a matter of fact, we send men from Newmarket to Addington to get experience.

8. You refute the suggestion that the Addington men are addicted to loafing?—There is nothing in it.

9. In your experience I suppose you have seen men in private shops take advantage of an opportunity to talk to each other?—Yes.

10. Does Addington compare favourably with any private shop you have knowledge of?—Yes. If Addington had belonged to me while I was there I could not have got another pound of work out of the men.

11. You were quite satisfied with the men while you were there?—Yes, they surprised me. At times it looked an impossibility to get the work done, and they did more work than I thought was possible for men to do.

12. What is your opinion with regard to the plant and appliances generally at Addington?—There is not the slightest doubt that there is some very fine machinery at Addington, but the shop is not up to date in every respect.

13. What about the overhead cranes?—They are not satisfactory.

14. Would electric appliances be better?—Yes, or even a rope gear.

15. Some time ago, on the Department's instruction, you went over to Australia?—Yes.

16. During your visit what railway workshops did you see?—Eveleigh Railway Workshops in New South Wales, Ipswich Workshops in Queensland, Islington Workshops in South Australia, and the Newport Shops in Victoria.

17. You saw the principal workshops of the four railway systems?—Yes.

18. How did the industry and discipline of the men in those shops strike you as compared with Addington?—There was only one shop in which I would say the industry and discipline compared favourably with our own.

19. With regard to the shop in which the industry and discipline compared favourably with Addington, was it better, or do you think it was equal?—The system of work was much better, there is no doubt about that.

20. What do you mean by "the system"?—In building locomotives they would not touch the work of erection until the whole of the sets were completed.

21. They built locomotives in sets of ten, I believe?—Yes. I saw there lying on the floor of the erection-shop ten complete sets of frame-plates, ten sets of wheels, ten sets of cylinders, ten sets of cross-heads and motion-bars, ten sets of axle-boxes, and ten sets of Horn plates. They were all completely machined and lying on the floor waiting for the completion of one or two other sets before any start was made at all on the erection of the locomotives.

22. In your opinion it is quite impracticable to build locomotives to advantage unless you build them in sets of, say, ten or five?—It is certainly a very great advantage.

23. To do that at Addington considerably more accommodation would be required?—Yes. I suggested that they should be made in sets of five.

24. Does not the fact that you are carrying on urgent repairs often interfere with the progress of new work?—Undoubtedly it does, and at Addington we have had to take all the men off the new work in order to push on with the repairs. Of course, repairs are kept up to date; the other was not. In this place I speak of in Australia repairs were sacrificed to new work. There were fifty locomotives waiting outside for repairs. They were giving preference to the new work just as we give preference to repairs here.

25. So far as your experience goes, you have nothing but good to say for the Addington men?—That is so. I consider that as workmen they are excellent, and their conduct is highly satisfactory.

26. You heard the statement made yesterday about the less rate, and you think there is no ground for doubting the Addington men's industry and discipline?—Not the slightest. The only trouble about Addington is that men interfere who have no right. They talk to the employees, and in that way upset the discipline and interfere with the shops. They really persuade the men that they have a grievance when all the time they have not.

27. You heard it stated yesterday that a certain large planing-machine just inside the machine-shop was unnecessary and largely useless: do you agree with that?—No. It is capable of doing work equal to that of the best up-to-date machine you can import. It cuts both ways, and its cutting-power is equal to 40 ft. per minute. You do not want a very flash machine for heavy work.

28. You did all your staff matters through Mr. Jackson?—Yes.

29. *The Chairman.*] When you were manager at Addington, was the staff system the same as mentioned by Mr. Jackson?—Yes, and very unsatisfactory, too. It got so bad at the finish that, in order to minimise the delay, I used to send a man round with the letters to the men on the list, and he waited for the answer. Otherwise we were kept waiting months at times for the reply.

30. Did it ever become necessary for you to recommend the dismissal of men?—I can hardly call to mind a case just now. We do not as a rule make a recommendation. We report them, and if the conduct warrants dismissal they are dismissed by the Head Office.

31. You found the conduct of the men at Addington in all respects good?—Taken as a whole, yes.

32. But you think there was some prejudicial effect by interference from outsiders?—Yes; any amount of false statements were made, and in due course these came on to me, and the men at the time got blamed for doing these things, whilst, as a matter of fact, they were innocent, and we had no means of finding out how it came about.

33. Do you mean that these outsiders came into the shops?—No; they got information from the men in the shops, and used it.

34. You are not alluding to outside persons coming into the shops?—No.

35. You have extensive experience of the shops outside of Addington, and have been at Newmarket. How do you find the desire to work on the part of the workmen at Addington compared with that shown by the men at Newmarket and the other shops of which you have experience?—I think it is about similar. Newmarket always had a good name, and I think the same applies to Addington. I see no difference in them.

36. Do you consider that during your time the men at Addington, taken as a whole, were doing a fair day's work for a fair day's pay?—I am quite satisfied in my own mind that they were.

WILLIAM VALLANCE MAUCLIN examined. (No. 6.)

1. *Mr. Beattie.*] What is your present position?—I am outside foreman for Messrs. P. and D. Duncan.

2. At one time did you work at Addington?—I did.

3. In what capacity?—As a casual fitter.

4. I am led to understand that you have expressed your willingness to give evidence as to what you saw when you worked there?—That is so. In my opinion the average workman in the Addington Workshops is just about on a par with the average workman in contracting shops as regards intelligence, experience, and ability.

5. And with regard to this charge which you may have seen in the newspapers as to their being addicted to loafing, does your experience support or refute that?—I do not think there is any more idling of time taking place in the Government than would take place in the average outside workshop.

6. Did you find the discipline good while you were there?—I think the discipline in the Addington Workshops is, if anything, rather more severe than it is in outside shops.

7. And, generally speaking, you would agree that the charge that has been made against the Addington Workshop men of loafing is unfounded?—Well, one might qualify that to a certain extent, because you are asking me questions, I take it, with reference to the general run of the shop, not of particular individuals. I do not think there is a great deal of difference between the average workmen there and the average workmen anywhere else. In my experience there is practically no difference. With the keener discipline the likelihood of any slackness on the part of the men is discounted to a very great extent.

8. Can you say anything of your own knowledge as to the quality of the work and the workmanship at Addington?—The quality of the work turned out is first-class.

9. Was the output of the work satisfactory from your point of view?—I am not in a position to state whether the output right through was up to contractors' standard, but in my opinion the methods of work in the Addington Workshops—mixing repairs with new work—adds necessarily to the cost. Very frequently a man has to lay down a piece of new work in order to go on with a hurry repair job, and consequently there is a loss of time in changing his machine and tools.

10. You have had experience elsewhere as well as at Addington. Taking the plant generally, so far as your knowledge of it is concerned, what would you say of it?—I should say it was fairly up to date. You have, of course, machines that are somewhat obsolete, but it is not good policy on the part of a manufacturer to throw out a machine that is obsolete because there is something better in the market, provided the obsolete machine can do certain portions of the work.

11. In other words, I gather that if the work is distributed as suitably as possible amongst the various machines you would think the result would be satisfactory?—Quite.

12. *The Chairman.*] Have you noticed any loafing at Addington?—Yes.

13. Have you noticed any more loafing at Addington than you have noticed in private shops?—No, about the same proportion.

14. You spoke just now of the changing from new work to repair-work, and *vice versa*. During your time was this often the case?—Very frequently.

15. How many times a day or week did such changing come under your personal notice?—With some of the men it would, of course, be pretty frequent, whilst other men were not changed at all. It is rather a difficult matter to say how many times per day or week any individual man or set of men would be changed, but the fact remains there were changes.

16. You cannot give any idea as to how frequent these changes were?—At some seasons of the year they would be more frequent than others. For instance, just immediately before, say, Carnival Week, the majority of the men would be taken off new work and put on to repairs, to get all the gear and engines that they could out on to the road for the holidays.

17. You do not wish to convey the impression that men were repeatedly changed, but only that when a press of repair-work came in because of holidays or other exigencies of railway work?—I may have led you to misunderstand me, but in answer to Mr. Beattie's question I was really answering him on the point as to whether the workshop was being conducted on good paying-lines.

18. Were these changes carried out with apparently little object, or were they changes necessitated by the fact that stock had to be got out in a hurry to meet the requirements of traffic?—These changes came about owing to the peculiar exigencies of the service.

19. *Mr. Roberts.*] Have you noticed any difference in the output of the machines in the shop you are in now compared with similar machines at Addington? Are they driven harder in the private shops than at Addington—is there more got out of similar machines?—I do not think any more is got out of similar machines, but in the Addington Workshops they have machinery that you will not find in any other shop, in Christchurch at all events. But for machines of a light capacity I think the men who are employed at the machines in Addington get as much out of them as do any men employed in any of the local shops.

20. Doing a similar class of work?—Yes.

RICHARD EDWARD ROBERTSON examined. (No. 7.)

1. *Mr. Beattie.*] What is your present position?—I am brake-inspector for the Westinghouse Brake Company. I travel all over New Zealand in the interests of the company, and to assist the Railway Department on air-brake matters.

2. Your services are entirely paid for by your company, I believe?—Yes.

3. Are you in any way under the direction of the New Zealand Railway officers?—None whatever.

4. You are here in the interests of your company, and in the interests of keeping up the brake from your company's standpoint?—Yes.

5. Do you recollect a contract being entered into between the Westinghouse Brake Company and the New Zealand Government Railways for the equipment of the Hurunui-Bluff Railway stock?—Yes.

6. Were you in charge of that equipment?—Yes, the whole time—about three years.

7. And, of course, on behalf of your company?—Yes.

8. Where was the equipment done?—At Addington Workshops.

9. During that three years you have had free access, I presume, to all the workshops?—Yes.

10. Did you have opportunities of observing as a practical man the work that was going on?—Every opportunity.

11. What has your practical experience been generally?—I worked for many years in Sydney in the large engineering-shops. I have been with the Westinghouse Brake Company about sixteen years

now, and I was about four years on the New South Wales railways, equipping the railway stock; three years on the Queensland railways; and I was two years in the Petone Workshop, twelve months in Auckland, and three years in the Addington Shops.

12. Are you aware that certain charges have been made against the Addington Workshop employees?—I saw the report in the paper.

13. And you volunteered to give evidence from your own observation and knowledge?—Yes.

14. What did you see at Addington?—I have had nearly thirty-four years' experience in railway and contract shops, and I have taken special note, especially on the railways, being so many years connected directly with railway work. I think the men in the Railway Workshops, especially in New Zealand, and Addington in particular, compare more than favourably with the outside shops. I know that Mr. Jackson is very strict, and looks very well after the men. The class of work, so far as I could see, was very good, and the men generally worked very well. There may be a certain number of men at Addington who loaf, but you will find that in every shop. On the contracts I have had charge of, though I watched the men very closely, still there is a certain class of men who will loaf if they get a chance. Addington is no worse than any other workshop. On the contracts I have always been pleased to engage railwaymen. In fact, I give preference on many occasions to men who have left the Railway service. I find them in every case good workers—very willing workers. They do not need to be watched either.

15. From your own observation can you say anything about the supervision on the part of the foremen and Workshops Manager at Addington?—Mr. McCarthy was Workshops Manager when I was in Addington, and I should be very sorry for any of the men he caught loafing. I know, as far as I could see, there was very little loafing in Addington in my time.

16. Did the foremen seem to be diligent in their supervision?—Yes, so far as I could see or understand.

17. Did you notice the discipline of the shop generally?—It was very good.

18. With your knowledge of outside contract shops and other railway shops, and with your knowledge of the work being done at Addington during the time you were there, can you give any idea of the efficiency of the plant generally at Addington?—I think it was very fair. There is some very good machinery there. Some of it may be a little old, but if even it is a trifle old it is still useful so far as I could see. They have got a very fine pneumatic plant at Addington, and I do not think there is anything like it in any other shop in the Dominion. I am specially interested in the pneumatic tools, particularly the labour-saving tools, and I am nearly sure that Addington has the largest compressor of any workshop in the Dominion. I think I was the first in New Zealand to introduce the American pneumatic too's, and Addington has a very fine stock of pneumatic tools.

19. It has been stated by a witness who seems to have had more or less the run of Addington Workshops that he did not see any pneumatic hoists. Can you suggest why he did not see them?—They are both inside and outside. I know that before Mr. McCarthy left he had some very fine pneumatic hoists for removing rails both inside and outside the shops. I travel over the whole of the New Zealand railways, and visit every Railway Workshop, and they have pneumatic plants in Auckland, Napier, East Town, Petone, Addington, Hillside, and Invercargill. I think the railways are very well up to date so far as pneumatic appliances are concerned.

20. In running your contract for the company, did you yourself engage all your staff?—I have full control either to engage or dismiss at a moment's notice, subject, of course, to the Arbitration Court in the matter of dismissing.

21. You have not any difficulty in enforcing discipline?—None whatever.

22. You have no difficulty in getting the work out?—No. I was continually on the spot.

23. With regard to Addington, you think the allegation of loafing is unwarranted?—It is not true.

24. *The Chairman.*] Have you had experience in English and American shops?—I was eight years and a half with the North-eastern Railway Company, England, and I have had twenty-six years' experience in the colonies.

25. Compare the methods as they were when you were with the North-eastern Railway Company with the methods of this day at Addington—what is your opinion of the relative efficiency of the two?—I say Addington is the better.

26. How many years is it since you left the North-eastern?—Twenty-six years. There have been many changes in that time.

27. It has been stated that the hands of the foremen at Addington are somewhat tied—that they have not real power over the men. Do you consider that to be the case?—I could not say anything about that. I do not know anything about the official matters.

28. Do you consider the system at Addington such as will result in the maximum amount of work being turned out?—I think the Manager or the Engineer should have full power to discharge or employ as he likes. I have that power on the contracts, and that is why they are carried out so well.

GEORGE BROOKS examined. (No. 8.)

1. *Mr. Beattie.*] What is your position?—I am Workshops Foreman at Petone Railway Workshops.

2. How long have you been in the service?—With one break, about twenty-seven years.

3. I understand you can give some evidence as to a conversation which took place in your presence between Mr. Jenkinson, Foreman Forbes, and yourself?—Yes. I cannot remember the exact date, but it was the day prior to the publication of Mr. Ronayne's memorandum. That would be about the 19th January. I went into the machine-shop, and Mr. Jenkinson and Mr. Forbes were talking together. Mr. Forbes introduced me to Mr. Jenkinson, and I passed a jocular remark as to whether he was looking for a job, and he said he was not. Mr. Jenkinson said, "You seem to be pretty busy";

and I said, "Yes, there is always plenty of work at Petone." He made the remark, "I have just been down South." Mr. Forbes asked him how things were down there, and Mr. Jenkinson replied that things were in a very bad way. He said, "They appear to be taking things very easy, and it is not the shop it was when you and I were there about fifteen years ago." We went on talking on general topics, and with that he simply said, "Well, I must be getting along," and shook hands with Mr. Forbes and myself and left.

4. Did Mr. Jenkinson make any remark, either jocular or otherwise, about his intention of shaking up Addington, or anything of that sort, in your hearing?—No.

5. *Mr. Hampton.*] When you saw Mr. Ronayne's letter in the newspaper the next day, did it occur to you who the "expert engineer" might be?—Yes.

6. Who?—The Hon. Mr. Jenkinson.

7. What led you to that conclusion?—By the manner in which he took stock of the shop.

8. The sentiments which were contained in Mr. Ronayne's communication and put down to an "expert engineer" were identical practically with the remarks made to you by Mr. Jenkinson?—Yes, that is so.

GEORGE SCOTT examined. (No. 9.)

1. *Mr. Beattie.*] You are an engineer in practice in Christchurch as a foundry-proprietor?—Yes.

2. You, of course, are a gentleman of very large experience in engineering matters?—Yes.

3. You have some knowledge of the Addington Workshops and the plant there, and the class of work turned out at the Addington Workshops, including what you would see at the Exhibition?—That is so.

4. With regard to the workmanship of the work turned out at Addington, what is your opinion of it?—I may say, in reference to the boiler-work turned out at Addington, that I think it is of the very highest quality. I have examined quite a number of the boilers turned out there—I have not examined them in the shops themselves, but in the railway-trucks when ready for sending away to Wellington—and I have always remarked that the quality of the work turned out at Addington Workshops was far better than what is turned out at Home. I may say that I know what is turned out in the Midland Railway Workshops. I have been through that establishment, and know a great deal of the work that is carried on there. I have also been through the Baldwin Locomotive Works, and I must say that I do not think the work turned out by the Baldwin Locomotive people, or the firms at Home, would equal the quality of the work turned out at Addington Railway Workshops. Of course, we know that the Addington people are handicapped to a certain extent with the machinery and appliances that they have, and, if I may be allowed to state my opinion, I think the time has now arrived when complete new shops should be erected. I do not think it is so much the fault of the men or the plant they have there as of the workshops themselves. I think both new shops and fresh appliances are required. These shops have now been in existence for thirty years or more, and, as we all know, in the colonial shops it is a matter of additions from year to year. One machine is put down in one corner, where room is made for it; and next year another machine is got in, and it has to be crammed into another corner. These shops have been there long enough, and in the interests of the Dominion it is time that new shops were erected. I may say that we ourselves have experienced that necessity. We had very good shops built thirty-odd years ago, but of late years we found those old shops quite inadequate and quite out of date; and within the last two years, to bring our shops up to date, we spent between £20,000 and £30,000, and I think the time has now arrived when the Government should do the same. A great deal has been said about modern machines, but I think it would be a great mistake for the Government to go in for a large expenditure in putting down a modern plant in these buildings. Buildings of a more secure and fireproof nature should be erected. In reference to Mr. Henderson, I do not know him personally, but I may say I have always heard him spoken of in the very highest terms as being a man who uses tact in managing his men, and as a first-class tradesman.

5. On any of your visits to Addington has it occurred to you that the men were doing what has been termed by some one "a Government stroke," or, in other words, were working below their normal speed?—No, such never occurred to me; but I have thought, in going through the shops, that you could not get the maximum of work out of the men because the works were unsuitable for it.

6. For that you would not blame the men?—Not at all. I think they are doing all they possibly can with the shops they have.

7. *The Chairman.*] What would you say with regard to the system of appointment in the Government works, whereby neither the foreman nor the Locomotive Engineer has direct power to appoint or dismiss men?—I certainly think that the man in charge should have power to suspend a man, but I do not know that it would be safe to give him power to dismiss the man. I think, though, they should have some power other than they have. You always find, when you get a number of young fellows in the shop, and they realise that the foreman has no power to discharge or suspend them, that they take advantage of it.

8. Do you not think that the Railway Appeal Board which is constituted by Act of Parliament is a sufficient tribunal to insure justice being done?—That method is too cumbersome. It takes too long to get at it. You should be able to deal with a man who is suspended within a week. The foreman should have power to suspend, and then, I think, the Mechanical Superintendent should have power straight away to discharge that man.

9. *Mr. Roberts.*] In making up the cost of your work, what would you consider a fair allowance to make for the expenses of management and upkeep of the shop generally before you added on your profit? What do you consider a fair percentage to add on to the actual cost of labour and material to cover the fixed charges of management, power, depreciation, &c.?—That is an item that varies very much in the different shops, but I should say that at the Addington Shop it would possibly be 28 per cent.

JOHN HERBERT FOX examined. (No. 10.)

1. *Mr. Beattie.*] What is your position?—Locomotive Engineer.
2. How many years have you been in the service?—Just over twenty-seven years.
3. During the Christmas and New Year holidays were you relieving Mr. Jackson at Addington as Locomotive Engineer?—I was.
4. Were you there when the letter written by Mr. Ronayne was sent down?—I was away at the time it was received, but I came back a few days afterwards.
5. Was it dealt with in your absence in any way?—No, it was locked up.
6. You dealt with it on your return?—Yes.
7. Will you explain what action you took?—When my attention was called to it, I took it over to the Workshops Manager and read it over to him, and also to three of the principal foremen who were called in. I said it was a very serious charge to make against the workshops, and we should have to go into it fully. I told the Workshops Manager I should write to him asking him for a report, and also for the explanation of the different foremen. I also sent the Manager a copy of the letter. I received reports from the Workshops Manager and his foremen, and replied to Wellington.
8. Will you look at these reports and say if they are true copies of your own report, together with the reports of the Workshops Manager and the various foremen under him?—If my memory serves me, they are the exact copies of the reports I sent forward. [Copies of reports put in.]
9. As a result of your inquiries, which I presume were made in a searching way, did you find any substantiation of the charges made in that letter?—Not the slightest.
10. Have you a knowledge of the staff of the other Railway Workshops?—Yes, I have had charge of most of them from time to time. I am relieving Locomotive Engineer, and in that capacity have to relieve the Locomotive Engineers and also the principal workshops officers.
11. Therefore your experience leads you all over the colony, and into intimate relationship with the various workshops?—That is so.
12. And you claim, I presume, that you are in a position to judge as between the various workshops?—Quite so.
13. Will you explain your conscientious opinion as to the discipline and the diligence and work generally at Addington?—I think it compares most favourably with any other Railway Workshop in the colony, and also with any private shops I have had occasion to visit on departmental business. The quality of the work at Addington compares most favourably with any other I have seen, imported or otherwise.
14. Have you experienced any difficulty in maintaining discipline at Addington or elsewhere?—No. In none of the workshops have I had any trouble at all.
15. Beyond isolated cases of individual men, have you any reason to suppose that there is systematic loafing in any of the workshops?—I am quite satisfied it does not exist, as I have said in my reports.
16. The question has been raised as to there being room for improvement in the system of appointing and discharging staff, more particularly the casual staff?—I think there is room for improvement.
17. What is your idea as to the lines the improvement should take?—With regard to engagements I think the Workshops Manager ought to be allowed to engage hands and pay them off when they have done with them, selecting the most suitable.
18. That, of course, refers more particularly, I take it, to the casual staff?—Oh, yes! I have seen many cases of great delay caused by the present system. Names are sent down, and it has not been possible to find some of the men. An unsuitable man has been started, and after trial had to be paid off. Then there is further delay before other names are received. The list of names you get is taken consecutively. We were instructed to give the man whose name was first on the list the first trial, and we had to wait to hear from him. Very often a delay of weeks occurs. The man might even be out of the colony.
19. You think that in the interests of the shops the Workshops Manager should have power to take on and put off staff?—I am quite sure.
20. How long is it since you relieved at Hillside?—Four months ago.
21. What is your opinion as to discipline at Hillside as compared with Addington?—I do not think it was any better. It is the same in both workshops.
22. Do you consider both workshops are efficient in that respect?—Yes; there is no difficulty in maintaining discipline at Hillside or Addington.
23. And each compares with the other?—I think so.
24. When this letter arrived, and you laid it before your officers, did it cause a considerable amount of vexation?—They were very much upset that such a charge should be made.
25. And, of course, their reports you sent on in due course?—Yes, and in those reports they demanded an inquiry to clear them, as they were quite sure the charges were not true.
26. You have been in charge of Auckland as Locomotive Engineer?—Yes.
27. Will you state your opinion as regards the Newmarket Shops comparatively?—I do not consider them any better than Addington. The men work about as hard.
28. Are all the workshops working to a similar standard as regards new work?—They all work to standard drawings.
29. Are they all doing this standard work equally efficiently and equally well?—Yes.
30. With regard to the plant and appliances at Addington, bearing in mind the class of work they are doing, will you state what you think of the plant and appliances generally?—I think they are very good. One or two improvements could be made for lifting heavy weights. There should be electric hoists, but for small lifts the pneumatic hoists are suitable.

31. From your knowledge of the various workshops, are you in a position to say that the output of the various classes of work at Addington is what might be expected?—I think it is.

32. Do you know that the work has to be changed frequently on account of the urgent state of affairs?—Yes.

33. That applies to all the Railway Workshops?—Yes; before all important holidays.

34. When you were at Addington did you notice any lack of hydraulic power?—No, and my attention has not been called to it on any occasion when in charge at Addington.

35. From your own observation, did you find the foremen at Addington thoroughly diligent in the execution of their duties?—Yes.

36. And thoroughly efficient in the matter of the supervision of the workmen?—Yes.

37. You had some opportunity of judging with regard to the boiler-shop. Mr. Jenkinson said that another leading hand was required. Did it strike you that this was so?—No. If it had I would have made a recommendation. I did not consider it necessary.

38. I suppose you did not see Mr. Jenkinson when he went round?—It was before I went down, I believe. So far as I know he was not round while I was there.

39. Did you, while you were at Addington, hear anything about the workmen being insubordinate or uncivil to their foremen?—Nothing of the kind.

40. Had such happened you would have dealt with it?—At once. I may say such a state of things does not exist.

41. You cannot, I suppose, tell us anything about the number of rivets per day put in by the riveter?—No, I did not take any notice.

42. *The Chairman.*] Have you ever had experience in any shops outside of New Zealand?—No.

43. Have you visited any shops outside of New Zealand?—No, I have never been outside the Dominion.

44. Your experience is confined to the Railway shops in New Zealand?—Yes.

45. Have you had experience in private shops?—Only as a visitor.

46. So that your statements as to the efficiency and speed with which work is done are based on your observations in the Railway shops of New Zealand alone?—Yes, very largely; but, of course, when visiting other shops, I have kept my eyes open. I believe our shops compare favourably with any shops I have visited in New Zealand.

47. What would you consider a fair day's work on locomotive-boiler work for a riveter such as they have at Addington?—I should say about two hundred with the present appliances.

48. Do you consider that the lifting-appliances at Addington are defective?—For heavy lifts; but for light lifts they are good.

49. By "heavy lifts" you mean overhead travellers?—Yes, and the crane for the hydraulic riveter.

50. What is the speed of travelling of the overhead cranes?—I have not timed them, but they are very slow.

51. You think electric cranes should be substituted?—Yes.

52. What speed should they have?—I could not say offhand, but I should say ten times that of the present ones.

53. Have you any experience of electric cranes?—No; but I have read some of the catalogues regarding them.

54. Can you give us any idea as to how many times a day these overhead cranes are in use?—Sometimes they are in use a good portion of the day, especially when rushing out rolling-stock just before the holidays, and in lifting boilers and cabs into place on the engines. Previous to those times they may stand for some days and not be used.

55. What would you put down as the average number of lifts that these overhead travellers have to make in a day, taking the year through?—I should say half a dozen lifts a day on the average.

56. *Mr. Hampton.*] You are quite certain that in the various places you have been stationed at you have found no difficulty in enforcing discipline?—Yes.

57. You do not think, then, that the Classification Act, which gives the men the right of appeal, in any way militates against the enforcement of discipline?—No, I cannot say I do think so.

58. Do you consider that the men show any disposition to take any undue advantage of the measure of security which that Act gives them?—I do not.

JOHN ANDERSON examined. (No. 11.)

1. *Mr. Beattie.*] You are an engineer and member of the firm of John Anderson (Limited)?—Yes.

2. Have you from time to time visited Addington Workshops?—I have visited them occasionally.

3. You have opportunities, I take it, of assessing the class of work turned out?—Yes.

4. What is your opinion of the work done on the Exhibition engine, &c.?—Excellent. It could not be much better. I have no great knowledge of what goes through Addington, but occasionally we ask Addington to do work that is beyond our plant, and when such work has been turned out for us it has been highly satisfactory. Otherwise my observations of the work going on at Addington are very casual. I have seen their work on the trains, and have examined with a critical eye as a sort of comparison with our own, and I must say I have always found the Addington boiler-work excellent. That is practically all I know.

5. What about the work exhibited at the Exhibition?—Oh! that was excellent. But, of course, you must remember that the Exhibition exhibit was a special effort. Occasionally we ask sometimes to get a forging from their big hammer, and that work is always turned out very well indeed.

6. *The Chairman.*] I think you said that you had no special knowledge of the internal working of Addington?—That is so.

7. The question has arisen as to what is considered in this country a fair percentage to add to the cost of labour and material for general engineering work, to cover fixed charges such as foremen's wages, cost of fuel, upkeep of plant and machinery and buildings, interest, and depreciation. Do you feel inclined to give the Commission any idea of what you consider a fair charge?—That is a very difficult question. It depends on what you do put down as working-charges. If you propose to carry the whole thing, supervision, depreciation, interest, rent, and everything of that kind, I will tell you this much: that, frankly, the Home people showed me their books without hesitation, and in most cases it was close on 100 per cent. That was arrived at from the actual working every year. Year by year they took out the actual cost.

8. That is exclusive of profit?—That is exclusive of profit altogether. I do not say that is for New Zealand. I am not going to commit myself there.

9. You evidently would consider 15 per cent. a small charge?—It is absurd. It would not look at it. That is my own experience.

10. *Mr. Niven.*] Could you give us any idea of what you consider a fair day's work for the hydraulic riveter under fair conditions on shell-work?—That has got to be very tightly riveted, and some may have to be cut out. Of course, in girder-work we get a good number in. I would not like to say what would be a fair number. It depends very much on the condition of the machine and the experience and knowledge of the men, and then you may have to cut out so many rivets. It also depends on the character of the building.

11. *Mr. Roberts.*] Can you give any idea of the average number of rivets that should be put in on a boiler?—I would not like to say. If you are on a shell you may, with a good run up and down, do a fair amount, but when you come to fire-boxes and other parts it is a very difficult thing to make an estimate. I should not like to commit myself. I know from memory to a certain extent, but I would not like to trust to memory.

12. *Mr. Hampton.*] Under certain conditions, and on certain classes of work, five minutes per rivet would not be too long?—I would not like to say that. I think I should take exception to the five minutes.

MYRON ALVA WELSH examined. (No. 12.)

1. *Mr. Beattie.*] What are you?—I am a blacksmith employed at Addington Workshops.

2. You have volunteered to give certain evidence based on your experience at Addington and in other countries. How long have you been at Addington?—About twenty months.

3. In what other countries have you worked?—I have worked in America, in the Philippine Islands, I have had a look through England, and through Germany as a blacksmith.

4. *The Chairman.*] Working your way, or as a visitor?—Through England and Germany I was sent by the Pittsburg Locomotive Works to gain knowledge for the benefit of the shop. I have seen shops where the division of labour was much keener than at the Addington Workshops; but, taking Addington Workshops as they are, with their conveniences, they do as well as any place I have been in.

5. *Mr. Beattie.*] It has been suggested that in the Addington blacksmiths' shop the work was very much of a "Government stroke" nature. Can you tell us anything as to that?—Well, I cannot find much opportunity for what you term "Government stroke." I have been in shops where there has been more fuss made, but they were only making a fuss and were not doing the work.

6. Are you prepared to express an opinion as to the suggestion that the smiths' shop is working at a less rate as regards energy than it should? Are the men loafing to any extent?—Not more than you will find in any other place. I can honestly say that they work better out there than in many places I have been in. They do not need to be driven. It seems to me that they have better discipline. The man who has control seems to have more power over his men. There is remarkable harmony and peace, and the men do not need any driving. Whilst I have been in many shops, in the smiths' shop at Addington there is more harmony among the men than in any shop I was ever in.

7. You think that is all conducive to getting the work out?—I have had a little experience in foremanising smiths' shops, and to my mind harmony is the important thing.

8. We may take it then that, in your opinion, the men in the smiths' shop at Addington are doing a fair day's work for a fair day's wage?—Yes. Mr. Scott opened the subject up. It is not so much the men as it is the shop, and Addington is not any worse off than any other shop. It may be that it is because I am a smith, but it seems to me that a smiths' shop is the last place in the world to grow. The smiths' shop never keeps pace with the rolling-stock.

9. Is that at Addington or elsewhere?—Anywhere. Take the locomotives that you have to-day compared with those of ten years ago, how much improvement has there been in the blacksmiths' shop? Many pieces that we make we have to take outside to turn round. That is not the fault of the men or the foreman.

10. That is a remark that is applicable to smiths' shops generally?—Yes.

11. The smiths' shop is allowed rather to be forgotten?—It seems to be on the tail end.

12. *The Chairman.*] Have you considered the energy shown by the men in the Addington smiths' shop as to how it compares with that shown in the American locomotive shops?—I have to say that they just work as well—that is, not considering piecework shops, of course.

13. What is the ratio in energy exhibited at Addington as compared with American piecework shops?—They are not in it.

14. How do the ordinary American day-work shops compare with piecework shops?—They are not in it.

15. The ratio is about the same?—Yes.

16. *Mr. Roberts.*] In what respect do you consider Addington is behind in the matter of appliances?—It is not so much the appliances as the arrangement—in other words, the floor-plan.

17. There is not enough room?—That is so.

18. Are there sufficient steam-hammers?—No. To my mind, to work blacksmiths to advantage, four men can keep a steam-hammer going.

19. How many steam-hammers are there?—Five, I think, in the smiths' shop.

20. How many men are there?—Thirty-three.

21. Have you any experience in stamping articles?—Yes.

22. Is there anything done at Addington at that?—Yes.

23. Is there a special steam stamping-appliance?—They have not a special plant, but they stamp as well as they can with the steam-hammer.

24. Do you consider that Addington is behind other shops in the matter of these appliances?—Yes, they are much behind; but there are other things to consider in that connection. It would not pay New Zealand to put in a modern "bull-dozer"; there would not be enough work to keep it busy.

25. There must be a good deal of repetition work in Addington?—Oh, yes!

26. Do you consider an improvement would be made if they had proper drop-hammers?—Yes. I would not say that you should get a modern "bull-dozer," because it would not pay to set that machine up for less than work running into seven or eight thousand pieces.

JAMES THOMAS HENDERSON, Foreman Boilermaker at Addington Workshops, examined. (No. 13.)

1. *Mr. Beattie.*] How long have you been in the Railway service?—About twenty-three years.

2. How long have you been foreman boilermaker at Addington?—About thirteen or fourteen years.

3. At Addington do you build practically all the boilers for the New Zealand Railways?—All the locomotive-boilers.

4. You are aware that a statement was made in a letter that the work in the boiler-shop at Addington was inefficient?—Yes.

5. What do you wish to say on that point?—I wish to deny it entirely. It is a false charge, without doubt.

6. Do you find any difficulty in enforcing discipline in the boiler-shop?—No.

7. Have you had insubordination or anything of that sort at any time?—No, I have not.

8. I suppose you would know what to do if you did?—I should, certainly.

9. You practically deny the truth of the statement with regard to any slackness in the boiler-shop?—I do.

10. Do you recollect Mr. Jenkinson visiting the Addington Workshops last November?—Yes.

11. Were you there?—I was.

12. Was it during Carnival Week?—Yes, when the shops were not working.

13. The boiler-shop machinery was not working?—No machinery was going at all. We were only doing repairs.

14. On that occasion, of course, very few men would be there, I suppose?—Very few.

15. Will you tell the Commission what transpired on the occasion of Mr. Jenkinson's visit?—We walked round the shop and looked at the work that was going on in connection with the cutting of the curvature of the cone for the barrels of the X locomotive-boilers. We walked from there round to the rollers, and talked about the rolling of the plates. I said we had a pretty tough job. He said, "You ought to have rolled the plates." I said, "Should we! If you had been at Stevenson and Cook's and seen them rolling them you would not have that opinion."

16. With regard to Stevenson and Cook's, that was where we got them rolled?—Yes.

17. Stevenson and Cook undertook to do them at a price?—Yes.

18. Stevenson and Cook found the work a bigger job than they anticipated?—On doing the first plate Mr. Cook came to me and said, "I do not think we are going to make much out of this job, Mr. Henderson." I said, "You will get on better as you go on," and that was so. The first took twelve hours.

19. Are Stevenson and Cook's rollers much more powerful than ours?—Yes. Their top roller is 18 in. in diameter and 18 ft. between the standards.

20. To come back to Mr. Jenkinson, you questioned his knowledge as to saying that you ought to have done this work at Addington, and you instanced the fact that Stevenson and Cook had found the work a big proposition?—Yes.

21. What transpired then?—I do not think there was anything of consequence that I can recollect. It ended up in a general talk.

22. Was there any disagreeableness of any kind? Had the matter left any lack of the same friendly feeling that had existed between you before?—I could not judge that. As far as I can judge, I should not say so.

23. It did not affect your feelings?—Not in any way.

24. Have you known Mr. Jenkinson fairly intimately for a number of years?—Yes, I have known him intimately for some thirty-five years.

25. He has gone round your shop at Addington from time to time?—I should judge that he generally comes down about twice a year.

26. On any of these visits has he, as a friend of yours and as a "brother chip," so to speak, called your attention to any loafing, or what he thought was loafing?—Never.

27. He has never suggested that your men were taking advantage of you in any way whatever ?—No.
28. He had not suggested that up to the last time you had a conversation with him ?—No.
29. Have you any explanation to offer as to why he should make this statement about your men loafing ?—No, I cannot fathom it at all.
30. Has there been any unpleasantness between any members of your respective families ?—None whatever.
31. Has Mr. Jenkinson at any time found fault with your plant to you ?—No. Some years ago he remarked to me that he was urging the General Manager to get a hydraulic flanging plant : that is all that has ever taken place between us with regard to the machinery.
32. He did not discuss anything about the number of rivets you were putting in with the hydraulic riveter ?—No ; he never made any remark about the riveter at all. In fact, during that week the riveter was not in operation.
33. Do you recollect if Mr. Jenkinson visited the Workshops after Carnival Week or about the New Year ?—I was told he visited the Workshops on the morning of Monday, the 16th November. That was the day we resumed work after Carnival Week.
34. Can you say whether the hydraulic riveter was at work on that particular Monday morning ?—It was.
35. Were you away on holiday at the time ?—No, I was on duty ; but I am not clear as to whether I had not been cald down to the local running department just at that particular time.
36. You were on duty, but did not happen to see Mr. Jenkinson ?—That is so.
37. With regard to that hydraulic riveter, how many $1\frac{1}{2}$ in. rivets should the machine be able to put in in an ordinary day ?—Well, working on the barrel, we ought to put in about two hundred.
38. Have you ever timed the period between the closing of the rivet and the release of the pressure ?—I told the men to count fifteen, and then release the pressure.
39. Is it possible on any work that you might take five minutes, as alleged, per rivet : have you any knowledge of that ?—No, and I do not think it did take five minutes.
40. You will admit that there are places where there is some difficulty in getting the rivet home ?—I take the average on a job from the time it is put on till it is finished.
41. Two hundred rivets a day includes all the awkward rivets as well as the straightforward ones ?—Yes.
42. Have you yourself taken the time as between rivet and rivet ?—Yes.
43. What do you make it ?—You can put in about four a minute—not on boiler-work, though.
44. Have you timed them ?—Yes. Take a firebox, where the work is not so particular, they run them in at about one for every thirty seconds.
45. There has been a reference made to the overhead lifting-winch you have there. Do you consider it would be a very great advantage to you if that were driven electrically or otherwise ?—Very much so. Hydraulic, I should say. As far as I can understand, the latest plant they have over in New South Wales is hydraulic, which is more under the command of the operator.
46. Mr. Jenkinson yesterday made some reference to the machinery going very slowly when he was there the last time—that would be on the Monday you spoke of ; and he suggested that there was a want of pressure. Have you any explanation of that ?—The working of the machines dependent upon one accumulator must, of course, be largely regulated by the pressure, which is dependent on the number of machines operating at the given moment.
47. It is quite possible, then, for the apparatus to momentarily run out of power ?—That is so.
48. That does not occur so frequently as to cause any considerable loss of time or trouble ?—No.
49. Speaking generally, does that hydraulic plant work satisfactorily ?—Yes.
50. Of course, if kept in repair ?—Yes.
51. When in good repair it answers your purpose ?—When the pump is in first-class order, yes.
52. With regard to your clerical work, do you find that your clerical work takes up too much of your time ?—It does take up a good deal. I would like, of course, to be able to spend more time in the shop.
53. Would it be possible to make more use of the Workshop clerk ?—Yes, it would be.
54. Could you get him, do you think ?—As a matter of fact, you have got to build up your replies to take them over to him to write them out, and there is the copying of them afterwards.
55. And you find it less trouble to do it yourself ?—That is so.
56. In what form could you get assistance that would be useful to you ?—It might be done in this way : Say there are five foremen, and the clerk's duties were so arranged that he could give one of us each a day. I think that would get over the difficulty.
57. How much of your time do you reckon is spent in the office per day ?—I should judge about three hours out of the eight. There is the initialling-up of the time-book ; that has to be done every day.
58. How long would that take ?—About two hours.
59. You always do that yourself ; the clerk could not do it for you ?—No, he is not allowed.
60. And the extra hour is devoted to such correspondence or papers as you may have ?—Yes.
61. Is the other plant, irrespective of the riveter, good and sufficient, or have you any remarks to make about it ?—If we had a flanging plant, and our punching and shearing machines were more modern, I think we should have everything we required.
62. And, of course, a power-lift for the riveter ?—Yes.
63. Your boiler-drilling, barrel-drilling, and firebox-drilling is satisfactory ?—Perfectly. There is nothing in Victoria or New South Wales to compete with them.

64. With regard to the Australian locomotive-shops, in what respect are they better equipped than we are at Addington?—In respect to their flanging plant, I should say. That is all. And, of course, their overhead cranes are electrically driven.

65. I think you have been in the habit of keeping notes of the time and cost of the work going through your shop?—Yes.

66. You have a knowledge of what work costs, and you have a pretty good knowledge of what each man is doing and is able to do?—Yes.

67. Are you satisfied that the staff under you are doing a fair thing?—I am quite satisfied that every man is doing his best. During the last twelve months they have had to go pretty fast.

68. Any imputation of idling is, in your opinion, then, quite unwarranted?—That is so.

69. You are perfectly satisfied with your staff, and refute the suggestion that they are inefficient or idling?—I do.

70. How many leading hands have you under you at the present time?—One.

71. What is his name?—Charles Earwaker.

72. What is your opinion with regard to additional leading hands in your shop?—Now that we have got through the rush work, I do not think it is necessary to have another one. Of course, we have an additional leading hand on at night, but that is another shift.

MONDAY, 15TH MARCH, 1909.

JAMES THOMAS HENDERSON, Examination resumed. (No. 14.)

1. *Mr. Beattie.*] Can you tell us what percentage of rivets you usually reckon on having to cut out of boilers in the Addington Workshops with the hydraulic riveter?—A very low percentage—perhaps one out of four or five hundred rivets. In a boiler sometimes we do not have to cut out any.

2. *The Chairman.*] What shop did you serve your time in?—R. S. Sparrow, in Dunedin, and I finished with Morgan and Cable at Port Chalmers.

3. Have you worked in any shops out of the country?—I started in the boiler establishment of the Ridsen Iron and Locomotive Works, San Francisco. After that I worked in Imry's at Port Chalmers, Kincaid and McQueen's at Dunedin, and then in the Government workshops.

4. You spoke of the Australian shops and what they were doing in some of the Australian boiler-shops. Do you speak of your own knowledge?—Only as a casual visitor. During my annual leaves of 1907 and 1908 I visited Australian shops.

5. Were you sent on those visits or did you make them on your own initiative?—I made them on my own initiative during my annual leave.

6. Do you find the boiler-shop at Addington too big for you to manage as foreman?—No.

7. What is the clerical work which you have to do?—There is the answering of correspondence; writing up the job tickets for material, picking it out from the drawings, and, of course, getting out the quantities; and initialling the time-books.

8. I think you said that initialling the time-books took you two hours a day?—Yes.

9. You do not initial the time-books in the shop?—No, in the office.

10. If you do this work in the office, what check have you that the time has been entered to the proper number by the men?—Only from general observation.

11. From memory?—That is all.

12. Have you never done this work in the shop as you went round?—I did at one time, until the staff got too big.

13. You found you could not do it in the shop?—Not now.

14. Have you any clerk or boy to assist you in the office?—There is the clerk of the Workshops foremen, who is supposed to assist us. He is generally with the foreman fitter, and if I require anything I have to get him to come along and assist me.

15. He is shared out amongst the foremen?—Yes.

16. And the foreman fitter has the best of him?—I think so.

17. You spoke about some plates that you were not able to roll. What plates were those?—They were cone plates for the barrels of these X boilers.

18. You were not able to roll them?—In the first place, our rollers were not strong enough. We did roll one, and it broke up our gear.

19. How thick were those plates?—Seven-eighths of an inch.

20. Were they exceptionally hard?—No.

21. Did you roll them cold or with the chill off?—Cold.

22. And you found the rollers would not roll them?—We could have continued rolling them, but the time occupied in repairing the rollers would have been so great that it was not worth while.

23. Stevenson and Cook finally rolled them, and had some trouble?—Yes, it took them twelve hours to do the first one, and to adjust the top roller they had to get seven or eight men on to the levers to obtain the required pressure.

24. These plates were $\frac{7}{8}$ in. thick, and not $1\frac{7}{8}$ in.?—Yes.

25. What is the biggest barrel-plate you have rolled at Addington with the present plant?—Three-quarters of an inch thick.

26. How long did it take?—Two plates took four and a half hours, including putting them into the rolls and taking them out, and there was no trouble whatever.

27. Has each riveter its own accumulator?—No. Sometimes the four machines are working off the one accumulator.
28. Is that accumulator a specially large one, or is it simply the accumulator that came out with the riveter?—It is the original accumulator which we had.
29. It is intended for the riveter also?—It was originally got for the first fixed riveter.
30. And you have adapted it for other work since?—That is so.
31. You have no flanging plant at Addington?—No.
32. Is your flanging done by hand?—Yes.
33. Plate by plate?—Yes.
34. Reheating on the fire or furnace?—The furnace generally. If we have an awkward plate we have to do it locally, but generally out of the furnace.
35. Then back to the furnace again?—Yes, straightened, and then annealed.
36. Can you get them through on one heating by hand?—On certain plates you can, but with other plates you cannot.
37. What average number of rivets do you say you can put in with the present appliances?—Two hundred in eight hours.
38. That includes lifting, shifting, &c.?—Yes.
39. You also said that you had kept time-costs and also wages-costs of the various jobs?—Yes. [Statement of costs put in.]
40. *Mr. Roberts.*] These two plates that took four and a half hours to roll—were they the usual boiler-plates?—Yes.
41. Only one longitudinal seam?—Yes.
42. What was the size of the plate?—About 15 ft. long by over 9 ft. in width.
43. It was not a cone-plate, then?—Yes, the first of the cone.
44. I thought you could not roll these plates in your roller?—We have to take it in sections.
45. Were those $\frac{3}{4}$ in. plates you said you could roll cone-plates?—No, barrel.
46. How long did it take you to roll them?—Two in four hours and three-quarters.
47. How long were they?—Roughly, the circumference would be about 15 ft.
48. Fifteen feet by over 9 ft. in width?—No. I do not think they would go much more than about 8 ft. 8 in.
49. Can you give me any idea as to how long it takes you to flange by hand the shell-plates of the firebox?—We could flange them for the X boiler in five days.
50. That is the largest boiler you have?—Yes.
51. How long does it take to flange a boiler-head plate?—For the X boiler we have to heat that locally, because the furnace is not large enough to take it in.
52. And the tube-plate?—We should flange that for the X boiler in about ten hours.
53. Is that done by fire, too?—For the X boilers these were imported.
54. Were they flanged when they came out?—Yes.
55. You did not do them up there?—Not for the X boilers, we did not.
56. Take the A locomotives: were they imported?—No, we flanged them.
57. How long did it take you?—Ten hours.
58. What is the diameter?—4 ft. 8 in., I think.
59. What is the thickness of the plate?—Five-eighths of an inch.
60. Single- or double-riveted?—Double-riveted.
61. How many men are engaged flanging a circular plate in the A locomotive?—A boilermaker and four assistants.
62. How many men are engaged on the front plate you spoke of?—The same number.
63. Can you give me the details of the work on the throat-plate at the back of the firebox?—Five days to five days and a half to flange it, with the same number of men and the same amount of work.
64. Do you consider that a reasonable time?—I do, for a plate of that description. It is a very difficult plate.
65. Are they all $\frac{3}{4}$ in. thick?—I think the top plate is $\frac{3}{4}$ in.
66. Have you ever drawn the Manager's attention to the want of a flanging-machine?—No.
67. I think you said it would be better if a flanging-machine were procured?—Yes.
68. But you never called the attention of the Manager to that fact?—Not officially. It has been spoken about, but I have never reported the matter officially.
69. You also spoke about the necessity for up-to-date punching-machines. Do you punch the holes in the boilers?—No.
70. You drill them all?—We work strictly to Board of Trade in that respect.
71. A flanging-machine is not much required for boiler-work?—It would be hardly used for boiler-work at all.
72. Have you ever complained about this deficiency to the Manager?—No; some time ago we were asked about our machines, and this matter was reported on.
73. You have made a complaint?—No. I recognised that my superior officer had been asked about that.
74. You say now that a proper punching-machine is required?—Yes.
75. It is only now that you have found out that these flanging and punching machines are required?—No.
76. Yet you have not complained about the matter?—The reason is that, so far as the punching is concerned, our machines are getting the worse of wear-and-tear, and our work is growing.
77. You have been working at a disadvantage with the present machinery?—For a while we have.
78. And you have not complained about it?—No.

79. With regard to the riveting, you say the sizes are $\frac{3}{4}$ in., $\frac{7}{8}$ in., and $1\frac{1}{8}$ in. Are they the sizes used in the large boilers you are making?—There are three diameters— $1\frac{1}{8}$ in., 1 in., and $\frac{7}{8}$ in.

80. You have been taking notes of the riveting of these boilers. Can you tell me how long it takes to put in rivets of the respective sizes?—On the circumferential seam, one minute and a half to each 1 in. rivet; for the $1\frac{1}{8}$ in. rivet on the horizontal seam, one in two minutes; the $\frac{7}{8}$ in. rivets in the smoke-box tube-plate are put in by the portable plant at the rate of one every minute.

81. Have you worked in any shop where hydraulic riveters were used?—Yes.

82. Where?—San Francisco.

83. What speed did you get there?—I was only a boy of fifteen years of age, and, as a matter of fact, was passing rivets to the machine.

84. It was not a machine the same as is at Addington?—No.

85. How fast do you reckon the machine in San Francisco put in rivets?—I should judge, from my passing of the rivets from the forge to the workmen, that the time occupied was about the same.

86. You never made observations of speed?—No.

87. Have you worked in any shops in this colony where hydraulic riveters have been used?—Only in Kincaid and McQueen's.

88. Did you see a hydraulic riveter working there?—Yes, on the boilers of the s.s. "Invercargill."

89. What was the size of the plates?—I could not say; I should think about $\frac{7}{8}$ in. shell.

90. Have you any idea of the speed at which they were got through?—No; it is a very long time ago.

91. *Mr. Niven.*] If you were informed that there was a hydraulic riveter similar to that at Addington in the Dominion putting in over five hundred rivets of $\frac{7}{8}$ in. size in boiler-shell work, would you be inclined to discredit that statement?—No; everything depends on whether it is a straight run or not.

92. *Mr. Hampton.*] You spoke in your evidence of a machine used for cutting curvatures: can you tell us the name of the man who invented that machine?—Fitter Sloane, at Addington Workshops.

93. Is it his invention, or is it his improvement on an existing machine?—To the best of my knowledge Sloane got the tool out.

94. Are there any other machines there that Sloane got out?—Yes, a tube-cutter and a tube-expander.

95. Is that all?—I do not recollect about any others.

96. Do you know whether Sloane has received any special consideration in view of getting out these machines?—I do not.

97. A previous witness has stated that he had heard that workmen in Addington were in the habit of speaking to their foremen in an insulting manner. Has anything of that sort ever come under your notice?—No. On one occasion a man did speak to me in that way, and I brought him before the Workshops Manager and he apologized. That is the only occasion.

98. This gentleman spoke as if this conduct was allowed there, and would not be allowed in a private shop?—It has not occurred with me, anyway.

99. You would have no difficulty in dealing with such a man?—It would be either he or I who would go out of the works.

JOHN SPENCE CLARKE examined. (No. 15.)

1. *Mr. Beattie.*] What is your present position?—Foreman fitter at Addington Workshops.

2. What has been your experience at Addington with regard to discipline?—It is very good—quite as good as that of any establishment I have been in, and I have been in all the main shops of the Dominion.

3. What has been your experience before joining the Railway service?—I started in the Railway service.

4. Have you seen any idling or loafing at Addington?—No.

5. Taking generally the plant for the new work, do you consider that it answers the requirements?—Yes, under the conditions which we work under.

6. If you had the cranes in the erecting-shop electrified, would that help you?—Certainly.

7. In the furtherance of the new locomotive-work, are you able to carry on that new work all the time, or have you to give over the new work for the purpose of taking on repair-work?—At times we have to take men off the new work and put them on to repair-work.

8. Does that interfere with the expedition of the output of new work?—Yes.

9. Have you a good staff under you?—Yes.

10. Have you had any experience of your staff being uncivil or insubordinate to you?—No.

11. *The Chairman.*] Where have you had experience in locomotive-work?—At Newmarket, East Town, Petone, Invercargill, and Addington.

12. Is Addington the only shop in which you have been employed at which new locomotive-work has been done?—Yes.

13. Therefore, practically, you had no experience in new locomotive-work until you came here?—Some years ago in Newmarket we built some engines, and in the same connection I had experience at Petone.

14. Have you had any experience in Australia?—I have been a visitor at the Eveleigh Works.

15. You spoke about electrifying the existing cranes at Addington: how many lifts are made by those cranes?—On an average throughout the year four times per day.

16. What was the speed on the cross-traverse?—I did not take the cross-traverse.

17. *Mr. Roberts.*] What sort of locomotives had you been building at Newmarket ?—FA and LA.
 18. How many ?—Four of each sort. That was while I was there ; some may have been erected since I left.
 19. Were those new engines ?—Two were new engines, and two were converted.
 20. What were the new ones ?—They were FA's.
 21. Is that long ago ?—I left Auckland in 1896—it was a year or two previous to that.

WILLIAM HENRY COLE examined. (No. 16.)

1. *Mr. Beattie.*] What is your present position ?—Foreman blacksmith, including the forge at Addington.

2. What is your experience ?—I served my time at the Ashford Works of the South-eastern Railway Company, England, and also in Mills and Cable's works in Wellington and other similar shops.

3. What is your opinion of your present staff at Addington ?—I have a first-class staff, and would not wish to have under me a better number of smiths.

4. With regard to your smith-work generally, what is its present position ?—We are further forward than ever Addington has been known to be.

5. You have a lot of repeat-work in the smiths' shop ?—Yes.

6. Do you make special arrangements for stamping that work ?—Yes. In that connection I have brought out a great many tools not only in Addington, but at other Railway shops in New Zealand—tools for switch-rods for 70 lb. points and crossings, which work was previously done at Addington on the anvil. I am not going to take all the credit for the manufacture of my machine for points-and-crossings work ; the suggestion was previously made to me. I submitted to Mr. McCarthy and Mr. Jackson an idea for punching out the double lines, and at Addington the double lines are now punched out in the quickest manner I have ever seen.

7. Your tools facilitated the turning-out of repetition-work by the use of stamping appliances ?—That is so.

8. By how much per pound approximately have you reduced the cost of the smiths' work on points and crossings ?—A halfpenny per pound.

9. On general engine-work, what do you reckon you have reduced the cost per pound ?—About the same.

10. And, of course, you have expedited the output ?—Yes. I encourage even the youths and apprentices to think out ideas for the facilitating of the work. They submit those ideas to me, which, of course, I consider, and draw the Manager's attention to them. In nearly every case the suggestions put forward are an improvement. Even the boys in the shop are at it now.

11. You find it a good thing to encourage the employees to scheme out things ?—Yes.

12. How have cranks for velocipedes been made hitherto ?—Up till lately they have been made on the anvil, and I have just completed a tool whereby these can be turned out at the rate of one per twenty minutes, as against two hours previously. The Manager gave me permission to make this tool.

13. What time do you reckon you have saved per set by means of your appliance in the points-and-crossings work ?—We used to make about two or three a day on the anvil ; I can make eight.

14. You have more than doubled the output ?—Yes.

15. Did you do a quantity of work for the A engines which are being built by contract at the Thames ?—Yes ; the connecting-rods, the eccentric cranks, the wing-nuts for the drawing-gear, buffer heads and shanks.

16. Wherever you can you use the stamper for that work ?—Yes. There is very little stamping in that, of course.

17. You do a quantity of work for the Wf class of engines now being built at Hillside ?—Yes.

18. What do you do for them ?—All the smith-work for the boilers, the connecting-rods and coupling-rods, eccentric cranks, and buffer heads and shanks.

19. How many men have you generally under you ?—Eighty men and eleven boys is the staff.

20. With regard to your shop, are you fairly well supplied with plant and appliances ?—We could do with a little more plant.

21. What additional appliances do you require ?—With this steam hammer stamping we want at least three more steam-hammers, and I would like a pair of bar-iron shears. That would save a lot of trouble. A hydraulic press for bending foundation-rings, and a more up-to-date bolting-machine would also be advantageous.

22. If you had these additional tools of a suitable type, do you think you could turn out work in competition with any one in the Australasian Colonies ?—Yes.

23. Do your men stick well to their work ?—Yes. If they do not they get treated as the last one did—he got sacked for not sticking to his work. This man I am referring to I reported to the Work-shops Manager, and he was fined, and came at his tricks again. He got the sack next time.

24. Have you any incivility from the men ?—None whatever, and I have not had anything approaching disobedience since I have been in Addington. I deal with the men fairly, and if they want trouble they can have that, too, without much talk about it.

25. *The Chairman.*] When did you go to Addington ?—In July, 1904.

26. Was any stamping done in the shop at the time you went there ?—They used an old out-of-date drop-hammer for stamping hooks and eye-holes for side chains. I made tools which increased the output at the rate of five to one.

27. Was any stamping under the hammer done when you went to Addington?—There was a lot of steam-hammer work done, but very little stamping. Since I have been in the shop the drop-hammer work I have stopped, and now have all that work done under a steam-hammer.

28. Apart from the drop-hammer, was there any system of stamping under the hammers in use in the shops when you went there?—Not so far as I remember.

29. You stated that you reduced the cost of smiths' work practically all round by $\frac{1}{2}$ d. per pound?—Yes.

30. Can you tell me what the cost of engine-work is?—Twopence farthing per pound for labour only.

31. Does that include fuel, or is it simply labour?—Simply labour.

31A. What is the cost for fuel?—I could not tell you the cost per pound of ironwork.

32. What is the labour per pound on points and crossings?—About $1\frac{1}{4}$ d.

33. You do not know the fuel-cost?—No.

34. On your bolt-work and general smiths' work?—It will run to about $2\frac{1}{4}$ d. or $2\frac{1}{2}$ d. on general smiths' work.

35. But you do not know what your fuel costs?—I know what it is costing, but not what it costs per pound of ironwork. I should say that in the smiths' shop about 3 tons of coal is used per day for the smiths alone.

36. In estimating the cost of a job, how do you get at the cost per hundredweight?—We take the fuel and the men's time on the work.

37. Do you know the cost of fuel per hundredweight?—Not from memory. I have run out several jobs on the cost of coal.

38. Do you find that you have much office-work?—Yes, I have a good deal.

39. How much time does your office-work occupy?—I should say quite three hours every day. I have to make out orders for the materials for the men, and then I have ninety-one time-books to go over and sign every day, and check the order-numbers. In addition, of course, I have to hunt up the blue prints. I have no leading hand, and have to control ninety-one employees.

40. Do you check the time-books in the shop or in the office?—In the office. I have a man to collect them, and I go through them.

41. How do you know that a man has been employed on the work for which the order number stands?—I have all the work in my office, and give it out to them. Very often they will make mistakes in their order-number.

42. In checking these books, then, it is a matter of memory?—It is to a certain extent; but I go over them every day, and that is very good practice; and I can recollect pretty well all the numbers.

43. *Mr. Roberts.*] How long does it take to make a foundation-ring for the A engine?—About seven days.

44. How many are employed on that job?—It takes the whole of the staff to forge them—the forgerman and four helpers.

45. How long does that take?—About two days.

46. And the smith's time?—He has to work very hard to get rid of it in five days, if that, and he has two helpers.

47. How long does it take to complete a buffer for the same engine?—About four hours, including the forge-work and the smith-work.

48. With the shank and all?—Yes.

49. How long does it take the forge to do one?—I think we make from six to eight buffer-heads in a night. That is, about two hours for each head. We will make a shank in half an hour; but for an engine-buffer we generally allow a little more time than for a wagon-buffer. The smith will put the shank into the buffer in about two hours. At the most, about four hours and a half altogether.

50. Take a set of connecting-rods and coupling-rods for the same engine: I suppose you rough some of them out?—We finish in the forge. We get them near enough for machining.

51. How long does it take?—We will do two rods a day; it all depends on the class of rods.

52. Take coupling-rods alone?—I have turned out four rods in a day, but good heavy going is three rods—that is, providing we shingle our iron.

53. You said something about looking over the blue prints?—Yes, I have to supply them to all men I give work to.

54. Do the men work to blue prints?—Yes.

55. Are they full size?—Yes; the full size is given.

56. They are tacked on a board?—Yes.

57. They are full-size prints?—Most of them are full size, and, if not, the scale is given generally $1\frac{1}{2}$ in. to 3 in. to the foot.

58. Do you allow blacksmiths to work to a scale of 3 in. to the foot?—Yes.

59. You do not always give them full-size drawings to work to?—Not always.

60. These drawings are, I suppose, prepared in the office. Do you have anything to do with that?—No. I simply get orders to work to them.

61. Sometimes they are $1\frac{1}{2}$ in. to the foot, sometimes 3 in. to the foot, and sometimes full size?—Yes, and even $\frac{3}{4}$ in. to the foot.

62. They are all figured, I suppose?—Yes, and where figures are given, if the articles do not scale out to the scale, we always take the figures for it.

63. *Mr. Hampton.*] You spoke of one of your employees bringing out an improved machine for points and crossings?—Yes; his name is May.

64. It has effected a considerable saving?—Yes.

65. Has May received any extra recompense apart from his wages?—No.

JOHN BARBOUR examined. (No. 17.)

1. *Mr. Beattie.*] What is your position?—I am foreman of the Addington foundry.
2. How long have you been at Addington?—Six and a half or seven years.
3. What was your experience before that?—Previous to coming to Addington I was nine months at Petone. Prior to that I worked in Christchurch, Wellington, Sydney, Adelaide, and Perth as a moulder.
4. What is your opinion of the output at Addington, judged by your experience in these several establishments?—I think Addington compares favourably with any shop I was ever in, and in many instances it is a good deal better. I should have but small means of ascertaining the output in private shops, because the bosses take good care that an employee has not much opportunity of seeing that. But since I have been foreman, during the visits I have made to other towns when on holiday, I find that the output at Addington is a good deal in excess of jobbing-shops in New Zealand.
5. Will you describe the class of work generally done at Addington?—I consider it is of a very intricate nature, far more so than in the average jobbing-shop, because the engines being manufactured there now—*i.e.*, the A and the X—are undoubtedly very intricate, more especially the high-pressure cylinders.
6. How many cupolas have you at Addington?—Two.
7. What do you think of them?—I think they do remarkably good work. From what I can gather, on looking up the American shop-practice, I find that our every-day average practice is better than the American work with the cupola. In every-day practice we average 9 lb. of iron to 1 lb. of coke, and, of course, the class of scrap we have to deal with is heavier and bigger than the average foundry has to deal with.
8. What is the heaviest casting you have made at Addington at any time?—Six tons and a half, turntable-centre. We have subsequently turned out a 7-ton turntable-centre in two parts of $3\frac{1}{2}$ tons each.
9. In all foundries you have, I suppose, a certain number of wasters in your castings. Have you a higher or a lower percentage of such at Addington as compared with outside shops?—I consider that the percentage of wasters at Addington is a low one. It is a lower percentage than that of some shops that I have been in. The men pay attention to their work, because they know it has to run the gauntlet of the Manager and the Engineer. If it is not true to the print, then the other foremen refuse to take the work.
10. Is the pneumatic accumulator of the big moulding-machine satisfactory?—The Tabor moulding-machine is a splendid machine, and is doing splendid work. Since the snap flask has been introduced the output has been increased by 35 per cent. per day, and, in addition, there has been a great saving in labour and in cost of plant.
11. Does the snap flask do away with the need of a very large number of ordinary iron boxes?—Yes, it is almost impossible to calculate the number you could do without with it. I have three in the foundry, and, of course, that saves a tremendous amount of boxes.
12. Taking the standard car and wagon brake-blocks, how many brake-blocks per day will that Tabor machine mould?—Forty per day with one man, and ninety per day with two men.
13. That is, ninety blocks?—Ninety pair: there are two in each box.
14. In other words, you require ninety cast-iron boxes to attain that output of 180 separate brake-blocks?—Yes.
15. How many snap flasks would you use, then, to turn out these ninety pair of blocks?—Two. One man would work the machine, while a second puts in the cones and plates—that is, two men with two snap flasks, as compared with ninety boxes previously.
16. How long have you been using these snap flasks?—Roughly speaking, six or eight months.
17. Did these snap flasks come with the Tabor moulding-machine?—No.
18. Have you kept yourself posted in the most recent foundry practice of the rest of the world?—Yes; I am a constant subscriber to the *Foundry*, an American publication, which I find even better than publications dealing with the practice of British shops.
19. Does the *Foundry* give details of the proportion of coke to iron per cube?—Yes.
20. Are you able to keep alongside that?—Yes, and we can do better. Their smallest cube average is thirty-six, whilst ours is only twenty-six; and they only melt per pound of coke 6·4 lb., while we melt 6·12 lb. with one kind of coke, and 8·13 lb. with another kind of coke, and with another kind we can do 10 lb., and with another 8·77 lb.; so that with a 26 in. cupola, as we stand now, I think the American practice is not in it with us. Of course, this was due to the quality of New Zealand coke and to the intelligence of the furnaceman.
21. You have charge of the brass as well as the iron foundry?—Yes.
22. Are you satisfied that the brass-foundry is working on efficient lines?—Yes.
23. Have you any moulding-machines in the brass-foundry?—One, the Pridmore.
24. One or two?—One, but it does the work in two pieces.
25. Do you mould all the repeat-work you can in this Pridmore machine?—Yes; that is one of the instructions of the Workshops Manager.
26. By the use of these Pridmore machines you are saving a considerable amount?—Yes. I have asked for two more of these machines, so as to obviate the necessity of taking those at present in use to pieces in order to put on other patterns.
27. With this machine you manufacture padlocks. Can you tell what saving you make per gross as compared with the old method?—We make now in forty-eight hours what it used to take three days to make—a saving of 50 per cent. in labour.
28. Are you satisfied with your staff?—Yes. I reckon I have got a really good staff; they are capable, efficient, good, and honest workmen.

29. Have you any difficulty in maintaining discipline ?—None whatever.
30. Do you receive any incivility from them ?—No, I give them civility myself, and get it back from them.
31. *The Chairman.*] How do you bring your coke and iron on to the platform of the cupola ?—It is carried up by manual labour, the coke in sacks, and the pig iron is broken into about 28 lb. pieces.
32. Are you satisfied with this arrangement ?—No.
33. You said you were satisfied with the appliances ?—The Workshops Manager and I have been talking this over, and the Manager has decided to give me a pneumatic lift.
34. How is the pig iron broken up ?—At present with a hammer, but the Workshops Manager has instructed me to get a casting for a hydraulic pig-breaker, and I understand that that machine is at present being pushed along in the fitting-shop.
35. After bringing the metal from the cupola, what is the method of transporting the ladle ?—We only have the crane, and that is very slow.
36. Is that satisfactory ?—Yes. It would be more satisfactory if we had a crane that worked faster, and which would not be so hard on the men.
37. How many men does it take to manipulate the crane with, say, one of the larger ladles ?—Twelve men, arranged in groups.
38. Do you use your overhead traveller for hauling the castings out of the sand, or do you dig them out ?—We dig them out.
39. How many men have you on them, then ?—It requires six men to take a long girder-casting out of the sand.
40. That would mean a large amount of digging ?—We do not do much digging.
41. Have you a bolting-down floor there ?—I put in a small one there, 15 ft. by 8 ft., for a job, and we left it in.
42. Have you a casting-pit ?—No.
43. How do you manage castings in large work, then ?—We sink in the floor as far as we can with safety.
44. There is a good deal of water there, is there not ?—Yes, it is very wet.
45. A watertight casting-pit would be a great improvement ?—It would.
46. What do your castings cost per hundredweight for labour, material, and fuel ?—The metal in the ladle before it is run in costs actually 4s. 9d. per hundredweight, including pig iron, coke, and coal.
47. That includes breaking up the pig and the lifting ?—Yes, all labour.
48. What does the finished casting cost ?—For the 55 ft. girder for the turntable four men are occupied for two days, and three men for two days additional—in wages that is £6 7s.
49. You do not know what the cost per hundredweight for the finished article is ?—No.
50. How many pounds of metal are produced per pound of coke ?—Two pounds of metal.
51. Have you charge of the steel-foundry ?—Yes.
52. How many pounds of steel are produced per pound of coke burned ?—It takes 252 lb. of coke to melt 140 lb. of metal.
53. *Mr. Niven.*] How many men are employed altogether in your department ?—Forty-five.
54. How many permanent hands ?—I really could not tell you from memory. There are three classes—permanent, casual, and emergency casual.
55. You do not know how many moulders and how many labourers you have ?—Yes, I have eighteen moulders in the iron-foundry, four in the brass, and six in the steel. The balance are labourers and apprentices.
56. How many apprentices have you ?—Three.
57. Do you find it is not advantageous to work with apprentices ?—I do not mind apprentices, but the trouble is that I cannot get them.
58. When hauling big castings out, do you get extra labourers in ?—No, each shop works independently.
59. You are not allowed to borrow men ?—I do not know that, but we could not get them if we wanted them.
60. Was the charge of 12s. 6d. per casting given by a previous witness for large or small castings ?—Small. That is one of our troubles. We have all the maintenance work to do, and a good deal of their work comprises very light castings—windmills and velocipedes.
61. You have a fair amount of engine-cylinders, I suppose, to turn out ?—Yes, and there are a lot of castings in connection with points and crossings. Crossing-blocks are made with the Tabor moulding-machine.
62. *Mr. Roberts.*] How many labourers are there in the iron-moulding department ?—Two.
63. How many in the brass-moulding department ?—One.
64. How many in the steel ?—Three at present, but generally we have only two.
65. In addition, there is a furnaceman, I suppose ?—Yes, and his helper.
66. How many casting-dressers ?—Two.
67. Where do you get your men from for the crane ?—We use the moulders.
68. How many days in the year does the shop run ?—I should say there were in all about twenty-five days holiday.
69. Do you reckon that 538 tons of castings is a fair average per year for the number of men you have employed ?—Yes, with the class of work we have to contend with.
70. What quantity of brass castings do you put out in the year ?—On an average from 6 to 7 tons a month.
71. Have you got the exact quantity you put out last year ?—No.

72. What quantity of steel castings do you put out ?—On an average from 7 to 8 tons a month.
 73. You stated that you had seen nothing to come up to Addington in point of efficiency. Have you been in any of the private shops in New Zealand ?—Yes, in most of them.
 74. Have you been in Anderson's ?—Yes.
 75. You think that Anderson's is not so good as Addington ?—In one respect Anderson's is better—they have an electric crane. Apart from that we have a better plant than they have.

ROBERT DONALD McEWAN examined. (No. 18.)

1. *Mr. Beattie.*] What are you ?—A turner employed at Addington.
2. How long have you been there ?—Since the 22nd June last.
3. Where did you work before you came to Addington ?—Glasgow.
4. As a turner ?—Yes.
5. Can you tell how the industry of the men at Addington compares with that of the men in the workshops on the Clyde ?—The men on the Clyde work harder.
6. Is it piecework on the Clyde ?—No, they work on the bonus system.
7. In saying that they work harder, that applies to the turners, of course ?—To all the machine-men.
8. Are the machines driven faster ?—The men keep steadier at it, and they adopt methods of labour-saving which means an increased output.
9. That is a result of the bonus system ?—Entirely.
10. Have you formed any opinion as to whether the turners here are good men ?—They compare every bit with the Clyde men. I may say with all truthfulness that the quality of work on the Clyde is falling very rapidly. It is becoming poorer every day as a result of the bonus system.
11. What do you think of the work turned out on the lathes at Addington ?—It is very good indeed.
12. Is it a better class of work than is turned out on the Clyde ?—Yes, at present.
13. *Mr. Roberts.*] What class of work were you doing at Home ?—Mostly marine.
14. No locomotive-work ?—Occasionally cylinders ; that was all.
15. *Mr. Niven.*] Why do the management not see that the work is properly turned out on the Clyde ?—They do not desire it, and will not allow their men to do better work.
16. The primary cause, then, is not the bonus system ?—That is the impetus that the management employ to force work out of the men.
17. You say that the management get more out of the men through the bonus system than from keeping to standard work ?—Yes, but the quality of the work is much inferior to what it was under the previous system.
18. What was the amount of the bonus involved ?—It gave us who were employed by the London and Glasgow Engineering Company from 5s. to 8s. per week extra, and in B. and Y. Stewart's something less.
19. What was the weekly wage ?—Thirty-six shillings per week.
20. *Mr. Hampton.*] What is your estimate of what the employer received from the extra work of the men by reason of the bonus system ?—I could not give an opinion.
21. Have you any knowledge of the output on piecework ?—I never actually worked on piece-work.
22. Before the bonus system came into operation with the men on the Clyde, did they work any harder or turn out a better quality of work than do the men at Addington ?—No.
23. Do you think that the work turned out at Addington, for quantity and quality, is equal to that turned out at the Clyde shops prior to the bonus system coming into operation ?—The output on the Clyde is really larger, owing to the machines being better.
24. Apart from appliances, the men at Addington are doing work equal to that of the men on the Clyde works ?—Yes, in every respect.

GEORGE VANDERBIT DRURY BUTTS examined. (No. 19.)

1. *Mr. Beattie.*] What is your position ?—I am foreman fitter at Addington.
2. What branch of the work are you in charge of ?—The riveter-work.
3. *Mr. Clarke* is in charge of the new work ?—Yes, we have two foremen fitters ; one is in charge of the new work, and one is in charge of the repair-work.
4. How long have you been in the service of the Department ?—About twenty-nine years.
5. What is your experience in the works ?—About seven years at Petone, two years at Addington, two years at Hillside, ten years at Greymouth, four years at East Town, and the balance, about three years and a half, at Addington.
6. In your time at Addington have you formed an opinion favourable or otherwise regarding the workmen employed at those workshops ?—Favourable.
7. Have you seen any evidence of going slow or want of industry amongst the men in the fitting-shop ?—No. I have had no difficulty in maintaining discipline. On one occasion three men refused overtime work : one went back after being spoken to ; the other two, after inquiry, were dismissed.
8. You have not had any difficulty in the matter of discipline ?—No.
9. Generally speaking, for repair-work, do you find the appliances at Addington are sufficient ?—There are not enough lathes, and those we have are not sufficiently modern. If we had more modern machines we could get through a greater quantity of work with the same number of machines at present installed. Especially would that be so with the steel lathes.

10. Are high-speed steel tools used at Addington?—In almost every case.
11. Does the big planing-machine come under your observation?—Yes.
12. For what purpose is the big planing-machine used generally?—For cylinders mostly. Up till the time they got the new crossing-shop it was constantly making switches for points-and-crossings work.
13. Was it used for centres of turntables?—Yes.
14. Have you another planing-machine at Addington to take these turntable-centres?—No.
15. Have you any trouble with apprentices?—Not more than the usual trouble. I think apprentices should be on trial for twelve months. You cannot get a fair idea of what a boy is worth under twelve months. If he does not prove himself to be of any good you can then get rid of him. Under the present system it is impossible to say at the end of three months whether a boy is good or is not. It would be better for the boy and better for the Department to have a longer trial.
16. *The Chairman.*] You have charge of the machines?—Yes.
17. If the foreman fitter engaged with new work requires work for repairs, how do you go about it?—He comes to me.
18. You say that three men refused to work overtime, and two were dismissed, and one was retained?—Yes.
19. Was there any special reason why this one man should be taken back?—When the position was pointed out to him he returned to work at once.
20. I understand you have a certain amount of office-work to do?—Yes. It is mostly signing my name, and there is, in addition, the time-sheets. They are supposed to be signed daily. Sometimes there are two hundred time-books in my department.
21. Where do you sign these books?—In the office.
22. Have you tried signing them in the shop?—No.
23. *Mr. Hampton.*] With regard to these two men who were dismissed for refusing to work overtime, were there any holidays in the week in which they were asked to work overtime?—I think Good Friday came into that week.
24. Is it not the case that a man is not paid overtime unless he works forty-eight hours in any one week?—I understand that is so.
25. Each day does not stand by itself?—No.
26. Would it not be an advantage to you in the maintaining of discipline that each day's overtime should stand on its own as the overtime of that particular day?—I would prefer it personally.
27. *Mr. Roberts.*] What is your opinion of the lathes in use at Addington generally, taking the old ones in particular?—We do what we can with them, but they are not sufficient to get the increased output that the high-speed gear should warrant.
28. You have some lathes built specially for high speed, have you not?—Yes.
29. Do you not think it would be a benefit to take out the old lathes and put in new ones?—I think so, decidedly. I think twelve out of thirty are beneficial.
30. They are all at work?—Yes.
31. The same applies to the drilling-machine?—Not so much. We have got some fairly good machines for drilling, but they are not up to date.
32. What do you think of the present lifting-appliances?—They are not very good.
33. Do you think anything could be done to improve the present shop?—I think it would be useless to do anything with the present shop except that the repair-work might be separated from the new work.

DANIEL JOSEPH ROUND examined. (No. 20.)

1. *Mr. Beattie.*] What is your position?—I have got charge of the painting, tarpaulin, and trimming department at Addington, and I have had thirty years' experience in the Railway service. During that time I have worked at Addington, with the exception of eight years at Newmarket, Auckland.
2. By way of comparison with Newmarket and Addington, do you find that there is any appreciable difference in discipline and industry in the conduct of the work?—I cannot say that I have noticed any difference. They may appear to be a little more bustling in Newmarket, but that might be because of the restricted area of the works. All the same, the men work just as hard at Addington as they do at Newmarket.
3. Does that apply to trimmers and tarpaulin-men?—Yes.
4. You are quite satisfied that throughout the whole department you have an efficient staff at Addington?—Yes.

GEORGE EDWARD RICHARDSON examined. (No. 21.)

1. *Mr. Beattie.*] What is your position?—Workshops Manager at Addington.
2. What is your number of years in the service?—Twenty-five and a half years.
3. How many years have you been at Addington?—Fifteen months as Workshops Manager.
4. What was your position prior to that?—Workshops Manager at Newmarket, previous to that Manager at Hillside, and prior to that Locomotive Engineer for Westland and Inspecting Engineer for the Nelson Section.
5. In your office do you keep a book for the issue of permits to visitors?—We do.
6. Have permits been issued to the Hon. Mr. Jenkinson within the last twelve months?—Yes, on two occasions.
7. Can you give the dates?—The 12th November—that was during Carnival Week—and the 16th November, the first working-day after the Carnival Week holidays.

8. Has he not been out since?—He was out one day last week, but I do not remember the date.
9. In connection with those visits of Mr. Jenkinson since you were Workshops Manager, did he call your attention to any idling?—He never spoke to me at all on either visit.
10. From your own knowledge and observation, have you seen any idling as a general thing in any shop at Addington?—No.
11. Any individual instance you have taken up, I suppose?—I have.
12. To say that any particular department at Addington was “going slow”—is that true or otherwise?—It is not true.
13. Have you an intimate knowledge of the boiler-shop work?—I have.
14. In your observation have you found Mr. Henderson an attentive foreman?—Most attentive.
15. How about the men in the boiler-shop?—They are a good working lot.
16. How many hydraulic accumulators are there in the boiler-shop?—Two.
17. What are they used for?—One is connected with the hydraulic riveters, and the other with the presses.
18. The one connected with the hydraulic riveter—have you any reason to suppose that that has been frequently inefficient?—No. There are times when perhaps the pumps are not working as they should, and that causes a little trouble, but when put in order they are all right.
19. When out of order they are at once attended to?—Immediately.
20. Would you say that the Addington staff generally is efficient?—Yes, most efficient.
21. Have you a quantity of pneumatic hoists in the Workshops?—We have them distributed all through the shops—of our own make and imported ones.
22. These pneumatic hoists, I suppose, save a lot of labour and time?—Yes.
23. You have overhead cranes in the erecting-shop?—Yes.
24. There were certain lifting-speeds and travelling-speeds given to the Commissioners: did you hear them given?—Yes.
25. Were they correct?—They were practically correct.
26. The speed depends to some extent on the weight of the lift?—Yes.
27. How many times a day do you think the cranes in the erecting-shop are in use?—Twice a day as an average all the year round.
28. If these cranes were electrified would it result in a considerable saving of time?—Yes. If electrified we should use them more.
29. We have been told that the big planer is a useless tool?—It is most useful.
30. Is it essential?—We could not get on without it or a similar tool.
31. Have you any milling-machines out of use?—No.
32. There has been a certain amount of evidence given as to the loss of time in changing from new to repair work when repair-work was wanted to be put through quickly?—That is the case.
33. Is that inseparable from any shop doing new and repair work?—It cannot be avoided.
34. What would be a better method?—To erect a new shop for new work.
35. As the conditions are at present you cannot avoid taking men from new work when repairs are required?—That is so.
36. With regard to high-speed steel for tools, is full advantage being taken of the benefit of high-speed steel?—Yes.
37. Do you find more than one make thoroughly efficient?—Yes, we have several makes there.
38. You have not been restricted to any one make?—No.
39. So far as you know, have you the best high-speed gear available?—Yes; it has proved to be the best after trials.
40. Has it resulted in a very much increased output of certain machines?—Yes. It has doubled the output of certain machines.
41. It enables you to run at a very much higher cutting-speed?—Yes, a higher speed and a heavier cut.
42. Have you made considerable use of high-speed steel twist drills?—Yes.
43. Of various makes?—We principally use two makes.
44. What is the result you have found from the use of these drills?—A big saving of time.
45. I suppose you have a lot of tank-plates to do: do you find it is quicker to drill them in sets, or do you find it is quicker to punch them?—It is quicker to drill them in sets or bundles.
46. Can you give any example of the time taken in drilling certain holes with these particular drills?—I cannot from memory, but we have the results of trials. In one instance, in unannealed cast steel, an inch drill accomplished 4 in. per minute.
47. Have you found any difficulty in maintaining discipline at Addington?—None whatever.
48. Have you had any insubordinate language addressed to you by any employee?—No.
49. A question arose in the course of the inquiry as to the need of an additional leading hand in the boiler-shop: what do you think of that?—I do not think it is needed in the present state of things.
50. Taking the plant generally throughout the Workshops, have you found it to be efficient?—Yes, generally speaking.
51. What do you consider are the points most needful to strengthen?—The lifting and the lathes.
52. And, with regard to the lathes, you want more of them?—Yes, more for the high-speed steel work.
53. Would you find it any benefit to have the machines in the machine-shop motor-driven?—It is my opinion that it would be an advantage to motor-drive them, or group them with a smaller power.
54. Do you endeavour to lay out the work in such a way that you will get it through in the least possible time?—It is laid out in the best possible manner to put it through in the least possible time and at the lowest cost.

55. With regard to the points-and-crossings shop, have there been any improvements since you have been there?—Yes.

56. In what direction?—In the system of working the different classes of rails. Different tools have been introduced in the blacksmiths' shop for producing the different parts, and wherever labour could be saved it has been saved.

57. Has the output of points and crossings been increased thereby?—Yes.

58. And the cost reduced?—Yes.

59. Are points and crossings made from the Manufacturing Account?—Yes.

60. You have other Manufacturing Accounts in the works?—Yes.

61. You yourself keep an eye on the state of these Manufacturing Accounts?—I watch them as closely as it is possible to do.

62. And if you found that any particular class of article was costing more than was allowed for it, what would you do?—I would take it to the foreman at once, and go into the whole thing and see where the leakage was.

63. Is it the case that all the Manufacturing Accounts make a surplus?—Yes.

[Summarised statements of staff at Addington, wages paid, value of work done, and new stock manufactured, put in.]

64. Are the A engines built at Addington similar to those at the present time being built by Price Bros.?—The last three are to the same drawings as the engines constructed by Price Bros.

65. Taking the net cost of wages and material at Addington, what was the total amount for these engines?—£4,310.

66. Did that include the Westinghouse brake and everything complete?—Yes, the engine complete ready for the road.

67. What was Price Bros.' contract price?—£3,998.

68. What was the cost of adding the Westinghouse brake?—£210.

69. What is the cost of completing the painting, which work is done at Addington?—£20, making a total for the engine of £4,228.

70. Supposing Price's took the contract for these engines at too low a figure, do you think it would result in leaving them without any profit on the job?—I think it would.

71. Has Addington built locomotives of the Wf class?—Yes.

72. Have some of the same engines been built at Hillside?—They were built at Hillside.

73. Did Addington supply any proportion of the material to Hillside?—Yes, the brass castings, steel castings, forgings, and the boilers.

74. What did the forgings comprise?—Connecting-rods, coupling-rods, crank-pins, buffer heads and shanks, and other parts of the draw-gear.

75. Did the second lot of boilers cost more or less than the first batch?—Less by £10 per boiler in wages.

76. We have had from England certain flange-plates already flanged. Have you taken any notice of them?—Yes. They were imported for the Wf and X engines.

77. Were they a good job?—Yes, excellent.

78. Did you compare the cost of these flanged plates complete with the cost of unflanged plates here, plus the cost of flanging locally?—We took out the difference in the cost as near as we could get at it. Of course, I do not know that the figures we got were absolutely correct, but I think they were very near it. In some cases we could do them cheaper, and in other cases it was in favour of the imported article.

79. Can you state what the cost per pound is on the average for the various forgings for the Class X engines?—They were principally made in mild steel, and the cost of forging was 4½d. per pound, including wages and material.

80. What was the cost of wages separate from material?—Twopence three-farthings.

81. Can you give the Commission any particulars generally regarding improvements introduced at Addington to increase the output?—There is a patent cutting-tool which was erected and placed on the plate-planer. That allowed us to cut out the cone-plate for the X boiler in nine hours.

82. That, you say, is a patent tool?—Well, it was never patented.

83. Do you use that tool on the frame-plates?—No. The cone-plate we were able to cut out with this tool in nine hours at a cost of 10s. 1½d., whereas the first one which we did by means of drilling cost us £2. Then there was the attachment we put on to the wheel-lathe, which enables us to do two wheel-centres at one time.

84. Did that result in a saving of time?—Under the old process it took us nineteen hours to bore a pair of wheel-centres; with the new process we can do the same work in twelve hours.

85. Are there any other improvements?—Tools of different sorts have been introduced in connection with points-and-crossings work. The tools in that line do work which formerly was done by hand.

86. And with regard to the snap flask?—We use that in three foundries—brass, steel, and iron. In connection with the Tabor machine alone we saved in the moulding-boxes £29 14s. 10½d. It is impossible to get at the exact saving achieved by reason of the improved appliances in the moulding-shop.

87. Had you any difficulty at one time with regard to annealing?—Yes, when I came to Addington we could not do it at all satisfactorily.

88. What did you do?—Took out the annealing-retorts and put in fans.

89. What was the result?—Very satisfactory castings—equal to anything produced in the Dominion.

90. With regard to the equipping of some of the older lathes for the use of high-speed tool-steel, have you made any alteration to the cone?—Yes. In the last lathe we took off the five-speed cone and replaced it with three-speed, which enabled us to get considerably more out of the lathe.

91. Have you the same idea with regard to the other lathes?—As opportunity offers we will do the same to all of them.

92. Will that result in an increased output from the old lathes?—Yes.

93. Is the slipping of the belts one of the drawbacks at the present time?—Yes, it is. The belts are too narrow.

94. Have you improved the steam-supply to the steam-hammers?—We have.

95. Are you thoroughly satisfied with the output of the moulding-work in the foundry?—Yes, iron, brass, and steel.

96. Have you found that the foreman moulder uses his brains?—He is a very capable foreman.

97. From your own research, reading, and inquiry, are you satisfied that the work in the foundry is being efficiently dealt with?—I am quite satisfied of that.

98. Can you tell me the working-speed of the overhead crane in the foundry?—With a 4-ton load it will travel practically at the rate of a foot a minute—that is, hoisting—seventeen minutes to lift 18 ft. It will lower at the rate of 2 ft. a minute.

99. Is there an air hoist for that crane?—There is.

100. What is its capacity—either 5 or 7 tons?—I am not quite certain.

101. If you get that air hoist for the foundry will you be reasonably provided for in the meantime?—Yes.

102. Would it be as good as electrification?—No, but it would help us considerably.

103. Are castings made to the Manufacturing Account?—Yes.

104. Has that Manufacturing Account been debited with all repairs, renewals, additions, and tools for the foundry?—Yes.

105. Was there a balance of profit to the foundry after entering up all charges?—Yes, a profit for the year of £650.

106. That is after charging everything that is chargeable?—Yes.

107. At what rate are the compound-engine cylinders issued?—Twelve shillings and sixpence per hundredweight.

108. Can you tell me what you consider the metal costs in the ladle?—Four shillings and ninepence per hundredweight.

109. Can you give an instance of the cost per hundredweight of representative castings?—The compound cylinder for the X engine—that costs us 13s. 2d. per hundredweight to produce. That is the net cost. The heavy casting for a turntable costs 5s. 8d. per hundredweight net to produce.

110. Have you any figures with regard to steel castings?—They cost us 1½d. per pound, and it costs us ¼d. to anneal.

111. That is the average cost of castings?—Yes.

112. How many locomotive-cylinders have been cast at the Addington foundry?—Ninety.

113. Do you remember how many “wasters” there have been?—Four.

114. Have you made comparative tests of New Zealand and imported coke?—I have.

115. What is the result?—New Zealand coke gave us the best results.

116. Are you satisfied with regard to the output, and so on, of the brass castings?—Yes.

117. How many pounds of brass castings were taken out for the year ending 31st March, 1908, the term “brass castings” including bronze?—149,169 lb., at a net cost of £6,224.

118. Can you state the profit made on that?—£1,918. The issue-rate is 1s. 6d. for bronze, 1s. for brass, 1s. 3d. for copper, and 2d. for lead.

119. When you were at Hillside, did you have any big work there—say, in the shape of the verandah for the Dunedin Railway-station?—Yes, we built the steel frame for the Dunedin Station verandah. The weight of the steel in that worked out at 200 tons.

120. What did that work out at per ton?—£7 11s. 3½d. per ton for wages and material supplied.

121. Was it a complicated piece of work?—Very much so; there were scarcely two pieces alike.

122. Can you give any information with regard to the forgings?—General forgings cost us in wages alone ¾d. per pound; stampings, 1d. per pound; bar iron, ½d. per pound; and blooms, ¼d. per pound.

123. *Mr. Roberts.*] Why do you say “bar iron”?—We manufacture bar iron for other shops out of scrap-iron.

124. *Mr. Beattie.*] The bar iron to which you refer is for special purposes, and is unobtainable in the ordinary market?—That is so.

125. Have you given any special attention to the running of the machines at the highest practicable rate?—Yes, we are running the machines as hard as we can run them.

126. Did you some time ago have a visit from an expert engineer representing certain steelworks in Sheffield?—Yes.

127. Did he show you what he thought were the best methods of dealing with certain high-speed steel, and the best way in which to handle it?—Yes.

128. Have you since found that your men can work up the same rate of speed as he demonstrated?—Experience has proved that we have done considerably better than that expert engineer showed us how to do. We harden it to better perfection than he did.

129. He was a practical man?—I understand so.

130. Did he dress his own tools and harden them himself?—Yes, and watched our men do the same.

131. You got a distinct benefit from his advice and demonstration?—Yes.

132. And have been able to still further improve on it?—Yes.

133. Can you quote certain cutting-speeds at which you are working?—The wheel-lathes are averaging a cutting-speed of 29 ft. a minute.

134. Is that on hard-steel tires?—I have taken that as the average. We are going 32 ft. on some of them. On wagon-axles we do the roughing work at 45 ft. per minute, finishing at 18 ft. per minute. The average of the milling-machines is about fifty-five revolutions per minute; the planing-machines vary from 22 ft. to 50 ft. per minute cutting. Our drilling runs at 150 to 198 revolutions per minute, and the feed in the drilling is $1\frac{3}{4}$ in. to $1\frac{1}{4}$ in. per minute.

135. In all cases you refer to the use of high-speed steel?—Yes.

136. Have you taken out any costs of machine-work?—The lathe-work for engine gear costs 4-3d. per pound (wages, of course); turning axles, 0-350d. per pound; boiler-mountings, brass, 6-3d. per pound; milling, 2-47d. per pound; drilling, 0-360d. per pound.

137. Do you frequently take out the costs per week so that you can compare?—Yes.

138. Will you explain the method of time-keeping at Addington?—The men enter the job-number and the time, and the sheet is taken out of their books and brought into my office and the time totalled up. From there it is taken on to the foreman, and then to the Locomotive Engineer's office for the purpose of pay-sheet. The time is taken off in my office for the purpose of compiling the Workshops accounts.

139. Do the foremen initial the men's time-sheets every day?—Yes.

140. Which do you consider is the better method—the books to be taken to the foreman's office, or the foreman to go round with the books?—On the whole, the books to be taken to the foreman's office. The men are scattered all over the place.

141. Generally speaking, do you take every opportunity yourself of being about the Workshops?—I am there all day.

142. *The Chairman.*] You have two accumulators in the boiler-shop: what is their type?—The ordinary type of accumulator; they came from Home.

143. As part of a plant or as accumulators by themselves?—I could not say; they were there before my time. I rather think they came with the first hydraulic riveting plant, but I would not be absolutely certain.

144. When the new hydraulic riveter came out, was an accumulator sent with it?—No.

145. Therefore there are two accumulators of the type usually used in conjunction with the hydraulic riveters?—Yes.

146. And those have since been tapped for working other machines?—That is so.

147. Has this given rise to any inconvenience owing to the accumulator running down?—At times there has been inconvenience, but nothing extraordinary.

148. Could you give us a general idea of the pneumatic system in use in the shops—as to the number of stations where air is compressed, and as to the general run of the pipes and the use that is made of the system?—We have the one compressor, and a reservoir close to it.

149. What is the type of the compressor?—Ingersoll Rand.

150. What is its capacity?—I think 350 cub. ft. of free air per minute.

151. How is it driven?—By steam.

152. With an independent engine?—Yes.

153. Simple or compound?—Simple.

154. And from the compressor?—We have a pipe-line running right up to the top end of the boiler-shop, and I suppose there are seven or eight stations for connecting up on that line.

155. What is the size of pipe?—Two-inch. Then we have a pipe-line running down the erecting-shop for the purpose of the air tools there, and we also have it through part of the machine-shop for the air hoists. In fact, it goes right through the machine-shops for that purpose. We also have it laid over to the points-and-crossings shop to the air hoist there, and into the car-shop for the hoists and the Westinghouse brake.

156. Have you any system for reheating the air?—No.

157. We were told this morning that Fitter Sloane had introduced a machine for cutting curvatures in boiler-plates?—That is so.

158. That machine originated with yourself?—That is so. I gave Sloane the idea and told him what I wanted, and he worked it out. I give Sloane the credit for working it out.

159. Did you give him sketches?—Very rough.

160. He worked it out on your suggestion?—Yes.

161. Was he ever recommended for any consideration?—No.

162. It has been stated that May introduced some special tools for dealing with points and crossings: is that statement correct?—That is correct; it was before my time.

163. We have heard from witnesses that there is a system in vogue which I think we now fairly understand, called the staffing system. What is your experience regarding the working of that system?—It is inconvenient at times.

164. Have your hands been in any way tied or your authority in any way interfered with by this system?—No.

165. Have you ever forwarded a strong recommendation with regard to the dismissal of a man which has not been acted upon?—No.

166. All your suggestions have been concurred with, then?—Yes, as far as I can remember.

167. You say you have noticed no loafing in the shops at all?—I will not say none, but practically none—not more than you would see in the ordinary shop. There have been individual cases which have been taken up.

168. Comparing Addington with Hillside, is there any difference in the lay-out of the shops?—A marked difference.

169. What is the effect?—That Hillside is the cheaper shop to work.

170. With regard to your own inspection of the shops, have you found that there is any difficulty in the work of inspecting at Addington?—No, except that it takes more time to get over the place, because the shops are somewhat scattered.

171. With regard to surprise visits, do you find Addington is more difficult than Hillside in that respect?—Yes.

172. Have you asked for new lathes?—Yes, I think so.

173. Have you asked for additional lifting-appliances?—For the foundry.

174. Not for the erecting-shop?—No.

175. With regard to the Manufacturing Accounts, I understand that all labour is charged to them?—That is so.

176. Is material charged?—Yes.

177. At what rate is material charged? For instance, at what rate are rails charged in points and crossings?—At the rate they are paid for at Home, plus stores commission.

178. That is supposed to be the rate at which they can be delivered in New Zealand?—Yes. We have to pay the same price as it costs the Maintenance Department to buy them, plus $2\frac{1}{2}$ per cent., the commission of the stores.

179. What do you pay for your pig iron and for your scrap?—Pig iron, £4 6s. 1d. is the average per ton; scrap—cast-iron scrap—we pay £3 per ton for.

180. You mentioned that the metal in the ladle costs 4s. 9d. per hundredweight. What proportion of scrap is in that metal?—Seventy-five per cent. of pig and 25 per cent. of scrap. The average cost is £3 19s. 6d. per ton.

181. What do you pay for coke?—£2 5s. per ton for Brunner, and £1 5s. for gas coke.

182. What fixed charges in the way of upkeep, depreciation, and supervision are put against the Manufacturing Account?—Supervision is charged, I presume, but I am not in a position to give those figures. Our profit is based on our cost of production and what we sell for.

183. What does your cost of production include?—Only labour and material and actual workshop charges.

184. Did I understand you to say that you were quite satisfied with the output and method of work in the foundry?—Yes.

185. Are you quite satisfied with taking the coke up to the cupola by hand?—Oh, no! but at present we are making an air lift and a hydraulic breaker.

186. You hope to be satisfied shortly?—Yes. I took your question to refer to the inside of the foundry.

187. Are you satisfied with the quality of the steel castings?—No, not yet. I hope to do better; but they are satisfactory to a very great extent.

188. You gave us some speeds of cutting which were in vogue at the present time, but you omitted to mention the traverse and depth. Take the big wheel-lathe, which you said had a cutting-speed of 29 ft. per minute. What is the traverse of that?— $\frac{1}{8}$ in. cut and $\frac{1}{15}$ in. feed.

189. And of the planers with a speed of 22 ft. to 50 ft. per minute?—The average cut is $\frac{1}{8}$ in., with $\frac{1}{32}$ in. of feed.

190. You think it is preferable for the foreman to initial the books in the office, for the reason that the men are so scattered: do you not think these scattered men require supervision?—So they do have supervision. The leading hand looks after them as well as the foreman.

191. Is not the foreman continually amongst them?—Yes, he is continually on the go.

192. Do you think it is possible for the books to be initialled on the job itself?—I do not think it is impossible, but I think it works better for the foreman to have the books in his office.

193. Are you satisfied with this system of keeping time?—No, I am not.

194. You think an improvement could be made?—I think so.

195. *Mr. Niven.*] Is the riveter on a hydraulic riveter a tradesman?—A first-class boilermaker.

196. It has been mentioned by you and others that you think it would facilitate the work if new work were separated from the repair-work. Is it not possible, with the small number of locomotives you make, that it would increase the expense of the work?—It would not pay to put up separate shops for a small number of locomotives.

197. If you had your staff separated you could not get the same use from them?—No.

198. If it was agreed to make locomotives in groups of five you would recommend it?—Yes.

199. But not under the present system?—No.

200. Does your price for castings include the cost of patterns?—No; patterns stand to a separate account.

201. Do you manufacture your own bronze?—Some of it; some we import.

202. Is the biggest proportion imported or manufactured?—The biggest percentage, perhaps, is imported—possibly half and half.

203. Do you put a different price on the manufactured from what you do on the imported?—No, we charge it all at the same price—1s. 6d. per pound. The imported article costs us 1s. 3½d. per pound.

204. You have told us about making improvements—what you call patents and improved machines, and appliances generally. Of course, you know that a great deal of time is taken up in experimenting. To what is that time charged, and the material used on those improvements?—To the Workshops Account.

205. *Mr. Roberts.*] When was this snap flask invented?—I do not know.

206. Who did it?—The foreman and myself were looking through a catalogue, and we saw it on the cover and made it from that.

207. I believe the snap flask was invented before I was born?—That may be; but when I saw it on the catalogue it was the first time I had seen it, and the first time the foreman had also.

208. When you get the hydraulic pig-breaker and the air hoist for lifting the metal to the stage, do you expect to reduce the cost of the castings?—It will save a man's wages.

209. Have you formed any idea as to how much per hundredweight it will reduce the cost?—I have not gone into that yet.

210. Do you use coaldust in the sand?—Yes.

211. Do you make allowance for that?—Yes, it is accounted for.

212. You said that the Dunedin Railway-station verandah was complicated and curved. Was it not made in separate principals, with a great number of principals alike?—There were a great number of principals, but very few were exactly alike.

213. There is no curve on the station?—No, but there are curves in the principals.

214. Are there not a number all the same?—Yes, but there are a great number that vary.

215. With regard to the taking-on and discharging of men, would it not be preferable if you had power to take on and discharge them yourself?—I think so.

216. *Mr. Niven.*] How do you charge patterns?—They are charged against a separate account.

217. Labour only?—Labour and material.

218. Do you show a profit on the labour?—That I am not prepared to say from memory. It is a separate order that we charge patternmaking to. Patternmaking shops are a separate branch.

219. *Mr. Hampton.*] Why do you think it is preferable that you should have the taking-on and discharging of men? Have you had any difficulty at any time in dispensing with a man?—No.

220. There can be no good reason, then, for making a change?—We cannot always get men.

221. You have had no difficulty in discharging them?—No, except that it takes too long.

222. I take it, however, that your remarks only refer to what are known as "emergency labourers"?—Casual labourers.

223. There are "casuals" who have been there for several years?—Yes.

224. You do not ask this power for them?—No, I really refer to "casuals."

225. You are perfectly satisfied with the present arrangements as regards the others?—Yes.

226. Who has charge of the fitting of cars and vans with the gas arrangements?—That comes under the jurisdiction of the foreman carpenter.

227. Who is the man who has the particular job of doing the work?—Fitter Turner.

228. Do you find him a capable man?—Yes.

229. Has he brought about any improvements in the gas-burners?—Several.

230. Are they working satisfactorily?—Yes.

231. Has he been recommended for any special consideration?—He has.

232. As regards the blacksmiths' shop, is there any necessity for a leading hand to assist the foreman?—I think there is now.

TUESDAY, 16th MARCH, 1909.

JAMES WILLIAM NICHOLS examined. (No. 22.)

1. *Mr. Beattie.*] What is your position?—Boiler-inspector for the New Zealand Government Railways.

2. How long have you been in the New Zealand Railway service?—About twenty-eight years.

3. How long have you occupied the position of Boiler-inspector?—For nearly twenty-one years.

4. Starting with your apprenticeship, what experience have you?—I have had about forty-four years' experience as a mechanical engineer, starting in the shops of the London and North-western Railway Company at Wolverton and Crewe.

5. Your duties take you all over the New Zealand railways?—Yes.

6. *The Chairman.*] Did you serve as a fitter or a boilermaker?—As a fitter. We did a certain amount of boiler-work all the same. We went into the shops occasionally.

7. *Mr. Beattie.*] During your inspection trips you have to visit Addington frequently, I suppose?—Yes.

8. On these visits to Addington have you noticed any of this reported idling?—I have seen no idling there.

9. Would you have had an opportunity of observing it had there been any going on?—Yes, I am moving amongst the men both in the boiler-shop and in the erecting-shop, and working amongst them.

10. In your opinion, are the men at Addington as industrious and as diligent, so far as you can judge, as they are in the other Railway Workshops?—Quite as much; I see no difference.

11. Will you state what, in your opinion, is the quality of the boiler-work?—The boiler-work is of the highest standard. It is made according to Board of Trade rules, and, of course, that is the highest standard.

12. Have you seen any evidences at Addington during any of your visits of any want of discipline?—None whatever.

13. Do you know Mr. Henderson, the foreman of the boiler-shop?—Very well indeed. I come into contact with him every time I visit there in the course of my duties.

14. How many years have you known him?—Ever since he has been at Addington.

15. From what you know of Mr. Henderson you would think he was a man who would enforce discipline?—I should say so.

16. Would you think, from what you know of him, that he would endeavour to get the maximum amount of work out of the men in the shop?—Yes, I am quite sure that he would, from what I have seen of him.

(This concluded the evidence called by Mr. Beattie.)

JAMES HISLOP (called by Mr. Hampton) examined. (No. 23.)

1. *Mr. Hampton.*] What is your present position ?—I am a retired Railway servant.
2. You were employed at Addington Workshops ?—Yes, for fully twenty-four years.
- * 3. What other shops have you worked in during your lifetime ?—I served my time with the old firm of Tod and McGregor, in Glasgow, in 1864. I also worked in the Anchor Line Shipping Company, Glasgow, for five years ; with Messrs. King and Co., Glasgow ; in Dubbs and Co.'s locomotive-works ; and also in Nelson's, in Springburn. In New Zealand I have worked in the Hillside Shops, in Messrs. Sparrow and Co.'s, and in Morgan and Cable's at Port Chalmers. I have worked also with Price Bros. at the Thames, and with Messrs. Brown and Smale at Gisborne.
4. Would you tell the Commissioners how the discipline and work done in Addington compares with that of the various other places you have been in ?—I have worked in those different private shops I have mentioned, and at Addington I have worked as hard as ever I worked in any shop, either in the Old Country or in New Zealand.
5. That applies also to the time you were with Price Bros. ?—Yes, I worked as hard in Addington. A. and G. Price was the name of the firm then.
6. Mr. Jenkinson stated in his evidence that he had recommended you, together with Messrs. Earwaker and Ross, for appointment as leading hand in the boilermaking-shop. Did he do this with your authority ?—No.
7. Did you ever approach Mr. Jenkinson and ask him to speak to Mr. Ronayne on your behalf ?—Never.
8. *The Chairman.*] You say you worked as hard in Addington as in any private shop. Can you give us any idea, speaking generally, of the manner in which the hands worked apart from your own case ?—Speaking generally, the Addington men work as hard and as honestly as the men in any shop I have been in.
9. Speaking generally, of course, with regard to the boiler-shop ?—Yes.

HUGH SLOANE examined. (No. 24.)

1. *Mr. Hampton.*] What is your present position ?—I am fitter in charge of the tools at Addington.
2. How long have you held this position ?—Since 1890, I think.
3. What other experience have you had in addition to that at Addington ?—I have worked with John Martin (Limited) in the North Island, and with Messrs. Scott Bros.
4. What is your experience with New Zealand firms ?—After leaving Scott Bros. I went to Cable's at Wellington, and from there came to the Addington Workshops.
5. Do you find that Addington for discipline and work compares with the other places in which you have been employed ?—I think it is superior.
6. Mention was made here yesterday of your having brought about improvements in connection with the machinery and appliances. Could you give the Commissioners some particulars of those appliances ? Take the hydraulic coupling for flexible tubes to connect the portable riveter ?—They had no couplings to connect that machine, and no couplings were supplied with the pipe, and Mr. Haskins told me that he had tried to make a coupling to connect the pressure-pipe, but it blew out every time. Both Mr. Haskins and Mr. Henderson came at me several times to see if I could make a coupling to hold the pressure. I eventually undertook the work, and it proved a perfect success. It never once came off until the pipe gave way through long use.
7. What about the stud-extractor used in the boiler-shop ?—It is used in the fitting-shop and in the boiler-shop. It is a very simple little affair, and could be made for about 3s., but it is worth its weight in gold. By this contrivance of mine studs can be taken out and put back again as required with the least possible difficulty. It is so simple that it is hardly worth while to patent it.
8. The radial cutting-head in use at Addington is also one of your contrivances ?—Yes, and I claim that it has very materially decreased the time occupied in the work for which it is used.
9. You also manufactured tools for making ticket-nippers ?—Yes. I made those tools at the request of my foreman. The Department were paying 15s. or 14s. for these ticket-nippers, and after I had looked at the machine I came to the conclusion that I could turn them out easily at 7s. I made the tools, and they are now in use, and have turned out some thousands of ticket-nippers. These tools are thoroughly original.
10. You were also concerned in the designing of dies for making swab-irons ?—Yes. When Mr. Smith was foreman of the Addington Workshops he came to me with one of those swab-irons and said that Mr. McCarthy was making them by hand, and asked me if I could make a die. I said, "I suppose so," and at once set about devising a punch and die. I succeeded, and my device is in use now ; and by its means as many swab-irons are turned out now in a day as were formerly turned out by hand in eight or ten days, and they are better made.
11. You also made an apparatus for boring king-pin holes in carriages ?—Yes. There had been a great deal of trouble occasionally in getting the $1\frac{3}{4}$ in. king-pin bolts out of the carriages and replacing them with 2 in. bolts. Mr. Handysides came to me and asked me to try and suggest some way of getting these pins into the holes other than that in use at that time. Up to that time I do not think two men could do the work that was required under eight hours, and this appliance of mine does it in one hour. The adjustable-feed head-clamp for widening the buffer-pin holes is also an invention of mine, and is now in regular use. It was also at my instance that the half-tooth feed, which is used on the large planing-machine, was adopted. I had no instructions as to what to do, but the Manager asked me to endeavour to make the feed finer. I devised a half-tooth feed so that the machine will now feed from half-tooth to three-tooth.
12. Were you responsible for the introduction of an improved tube-expander ?—Yes, and the tool I made is superior to anything I have got from the Stores or anywhere else. This expander of mine would outwear five or six Dudgeon's expanders, and then it would be good.

13. Did you invent an internal tube-cutter?—That is a thing I really claim I should get notice for. This cutter is quite an improvement on any other internal tube-cutter. At any rate, it is one of the best, and I made it and patented it by permission of the head of the Department. [Witness gave a detailed description of the working of the tube-cutter, which he submitted to the Board for their inspection, and handed in copies of correspondence between himself and the Department relating to his claim for monetary consideration for his invention.]

14. In working these things out, and thinking over them, have you occupied any time outside of working-hours?—The thinking and planning of them is entirely done outside of working-hours. I lie awake many an hour thinking on these things.

15. The treatment you have received, you think, does not encourage you to use your brains much?—Certainly not. I may say also that I have planned a method for obviating the danger always experienced in regard to the belting slipping off. That has always been a great source of trouble and danger. The larger the shop is the greater is this trouble, and I think that on a low calculation Addington loses eight hours every month in belt-replacement. By my appliance there is no necessity to stop the engine at all. I have also invented an improved boiler-stay tap, which has greatly facilitated the process in that work. An improvement on the perforated punch is another of my devices which is very valuable as a labour-saver. I have got very little encouragement for what I have done.

16. *The Chairman.*] What is your rating at Addington?—I am called a fitter.

17. Are you rated as tool-room fitter?—No, as Fitter Sloane.

18. What are you paid?—Ten shillings and sixpence per day.

19. You are not rated as tool-room fitter?—No; I have been in charge of the tools since Mr. Smith was made foreman.

20. Is it your duty to look after the tools and construct new tools?—It is not my duty to construct new tools, but it is my duty to keep the old tools in order; and it is my duty to order new tools from the Stores, but not to invent tools.

21. You are not asked by the foreman to make tools?—I am invited to make tools.

22. Were you asked to make a coupling for flexible hydraulic tubes, or did you suggest a coupling?—I was decidedly asked and pressed to make that coupling.

23. Were you asked to make the stud-extractor?—No, I made that, and after I made it I showed it to my foreman, who approved of it.

24. Was the radial cutting-head suggested by you, or were you asked to make it?—I was asked by the foreman.

25. You spoke about a die for making swab-irons which you were asked to manufacture by Mr. Smith. How is this die used?—It is used under the large punching-machine.

26. Are you quite certain that you were asked by Mr. Smith to make this die?—Yes.

27. What were the dies made of?—Cast steel.

28. Would you be surprised to learn that swab-frames were made under the large stamping-machine with a die at Addington before the time of your going to the works?—I should be surprised if they were so, because I have never seen it.

29. You spoke of an improved tube-expander. Are you familiar with the Yarrow expander?—Dudgeon's is the most used. I have never seen a Yarrow, and know nothing about it.

30. Are you familiar with the Wicksteed tube-cutter?—Yes.

31. Is there any difference between your tube-cutter and that one?—Yes, there is a considerable difference. The best of them that I saw was one with three little levers, and they would not do.

32. *Mr. Roberts.*] Are you in charge of the tools in the shop?—Of the hand-tools, such as milling-tools.

33. You are not responsible for the lathes or planing-machines?—No.

34. *Mr. Niven.*] Do they use all those appliances that you have mentioned at Addington and other workshops in the Dominion?—Every one is in every-day use when required except the tube-cutter, and they want that badly, but I have a protection over it.

35. You made the first stay-tap that you ever saw in Addington?—The first I ever saw in New Zealand.

36. Had you an opportunity of seeing in Cable's whether they had them or not?—I was in Cable's four or five months.

37. They might have been there and you not see them?—They might have been—locked up in a cupboard—but mine are quite original to me.

JOHN MAY examined. ⁶⁷ (No. 25.)

1. *Mr. Hampton.*] What is your present employment?—Blacksmith at Addington.

2. What is your rate of pay?—Ten shillings and sixpence per day.

3. How long have you been employed at Addington?—Twelve years.

4. What other experience have you had as a blacksmith?—I was in Nelson twice, in Wellington two or three times, and also in Sydney. I worked in the Anchor Foundry twice, Cable's twice, Luke's twice, and also in the Soho Foundry in Sydney.

5. How did you find the discipline and work at Addington compare with those of the other places in which you have been employed?—I am quite satisfied that Addington is just as hard a shop to work in as any other shop. Mr. Cole expects his men to turn out a fair day's work, and if they do not they know about it.

6. Mr. Cole mentioned yesterday something about your having introduced some new appliances in connection with your work?—I have introduced several. One thing in particular is a connecting-rod with the switch-boxes for points-and-crossings work. They used to do eight of these a day, and after I invented this tool we did forty a day. It has been a big saving to the Department, so the

foreman told me. They have used it ever since I brought it under the foreman's notice. Also riser-plates on the 70 lb. rails. I invented tools for that for doing away with measurement. A man does three at a time now. He puts them down, and they are finished without measurement at all, and they are always correct. Other labour-saving tools were for making bolt-washers for 70 lb. rails and union nuts, the latter of which I devised in conjunction with Mr. Cole. Mr. Cole invented another valuable tool in connection with switch-rods. Before Mr. Cole came there these rods were made on the anvil, and a man would make one set a day: I think we can make ten sets a day now. This tool is in use every day. If a blacksmith at Addington wishes to bring a tool forward Mr. Cole tries to help him as much as he can. Points-and-crossings work is going out at half the cost before Mr. Cole's time, for the reason that Mr. Cole listens to us and allows us to have our suggested tools made. Another tool I invented was one for bending box-rods. Formerly these were made on the anvil, but with my tool they are bent in a second. The Department has had the use of these tools ever since I brought them forward, and I have never been rewarded so far.

7. You do not feel encouraged to bring any more forward?—I have two more which I know would be a big saving. I suggested one to the foreman, and will go on with it. I also suggested another idea in connection with the rods, and Mr. Clarke complimented me on it and Mr. Richardson also, the latter saying that he would have the drawing sent to Wellington and see if the Public Works Department would approve of it. It will mean a saving of £7 on each job.

8. Is it an alteration in the style of the rod?—It is an alteration in the design. Six months ago they wanted to get 56 lb. points and crossings cheaper than they were then doing. Mr. Cole asked me if I could suggest anything, and I said, "Yes: in 9 ft. switches I can do away with half the cost if you like to give me the opportunity." I brought up the drawing next morning, and he had a copy taken and told me it would be carried out. I have not heard any more about it.

9. Have you thought about these things outside your working-hours?—As for "thinking" in the Addington Workshops, I have quite enough to think about in my ordinary work.

10. The Government have your services not only in the daytime but also when you are at home?—Yes.

11. They only pay you, for eight hours and three-quarters, an ordinary workman's wage?—Yes.

12. *Mr. Roberts.*] Do you ever find that new processes are originated by the foremen of departments or the Manager in Addington at any time, or has it all been left to the workmen?—No, I have just referred to what Mr. Cole has done. I have not had time to run about the other departments.

13. You would know from common knowledge in the shop whether improvements were made by the management?—I know that since Mr. Richardson came there there has been a difference.

14. He has introduced things himself?—Yes, in the points-and-crossings department he has introduced a good many improvements.

15. It is not all left to yourself and Mr. Sloane?—Oh, no! I do not wish to take credit for the whole of it.

DECIUS STARBUCK TURNER examined. (No. 26.)

1. *Mr. Hampton.*] What is your present position?—Gasfitter at Addington.

2. How long have you been there?—Twelve years at the works; eleven years in my present position.

3. What other places have you been in?—I served the biggest part of my time with the Midland Railway in England. I have also worked in paper-mills in New Zealand.

4. How does the discipline and work at Addington compare with other places in which you have been?—I have worked as hard in the Addington Workshops as anywhere.

5. In connection with your work as gasfitter, have you introduced any new ideas?—Yes.

6. Will you give the Commissioners a rough outline of the improved appliances you claim to have brought into use?—I made an improved pipe-bender, which saves a lot of labour in getting in and out of the pit. I fitted up the first Westinghouse brake gas and water service, and received no remuneration for it. There has been no accident or fault since I have been on the job. I have been on gas for eleven years.

7. Did you find it difficult work?—No, I worked on the first brakes put in in the Old Country.

8. It was left to your own initiative to fit up this system?—Yes, there was no one to show me.

9. Is there any other improvement you are responsible for?—I introduced a water-gauge for testing the water-pressure of the lamps in our carriages. I have also put forward a nipple which will do for either a 25- or a 50-candle-power mantle, and that is being given a six-months trial, and has proved satisfactory, I believe. Another little tool of my invention is a steatite-closing tool. I have a revolving tool and a hand-tool which closes the steatite by a little pressure on the nipple. I do not desire to say anything more at present about these things, because my case is now under the consideration of the officers, and I do not know how it is going to pan out.

10. Have you given a good deal of thought to these things outside of working-hours?—Yes, I do all my important working-out in the evenings.

11. You would like to see some method of recognising the work of men who show special ability?—Certainly.

12. The present system does not give enough encouragement?—No. If more encouragement is given there will be a better class of men to deal with.

13. *Mr. Roberts.*] You said a moment ago that, if greater encouragement were offered for original work on the men's part, the Government would have a superior class of men to deal with. Do you mean that a superior class of men would be attracted to the shops?—I mean that it would be a general advantage if men were encouraged to use their brain-power in the direction of bringing things forward. At the present time a man gets no encouragement.

MONDAY, 29TH MARCH, 1909.

Mr. T. RONAYNE, General Manager of Railways, re-examined. (No. 27.)

1. *The Chairman.*] It has been stated by a witness (the Hon. Mr. Jenkinson) that he has obtained from you concessions for railwaymen without their knowledge. Is this correct?—Mr. Jenkinson saw me on several occasions. He made certain suggestions regarding concessions to boilermakers. In some cases they were considered reasonable and were given effect to.

2. The same witness has stated that the Workshops foremen are robbed of full power by the Classification and Superannuation Acts and by the existence of the Railway Appeal Board. Do you consider this to be the case?—Foremen have power to suspend men from duty. They have not got the power to dismiss. Their position regarding the Classification Act as defined by Mr. Jenkinson is not quite understood. Every year each man in every workshop has his position reviewed. By way of illustration, say a boilermaker's work and value are being dealt with—the foreman boilermaker, the Workshops Manager, the Locomotive Engineer, and the Chief Mechanical Engineer sit as a board, and his claims for an increment or promotion are discussed and fixed for the D.—3.

3. Do I understand from you that there is a board that is cognisant of every man's position?—I may call it a "board." It is practically a board. It is the usual practice in all departments. The Maintenance Branch and the Traffic Branch follow precisely the same course which I am now illustrating as pertaining to the Locomotive Branch. The decision of the board, being duly certified to by each member of the board, is in due course forwarded to me, and if the recommendations are in accordance with the Act they are given effect to. The recommendations vary in character. In some cases the man's pay may be reduced, or he may be considered unfit for retention in the service. Should a man be retired or reduced in pay, assuming in all cases that he is on the permanent staff—not a "casual" hand—and a contributor to the Superannuation Fund, he may go to the Appeal Board for redress. Should he do so, the Department would probably call the foreman as a witness to justify his action and give reasons for his recommendations. In general practice it is found that foremen do not shirk their duty in this respect. It is possible that a foreman may recommend a man and overlook his deficiencies rather than appear before the Appeal Board, but, with the close supervision which is exercised by the Workshops Manager and the Locomotive Engineer, such a contingency I consider a very remote one and not likely to occur.

4. Statements have been made by witnesses alleging inefficiency in what is known as the staff system. Will you describe this system, and give your experience of its working, and the reasons for its adoption and retention?—To a certain extent I have already described the system, but I will give it in a more elaborate and lengthy form:—

In order to remove any misapprehension that may exist as to the necessity of concentrating the staff arrangements in connection with the Railway Department as a result of the statements made by Mr. Jackson when giving evidence before the Board, it will be as well to outline the system and the reasons which made its adoption absolutely necessary.

It was the practice for many years to allow officers in charge of districts, Workshops, and large stations at which a number of men were employed to engage, on their own responsibility, any men who were required to fill vacancies that occurred on their respective staffs. It was, however, found that this system did not work satisfactorily. Men who were considered unsuitable for employment in one locality would not infrequently go to another and be taken on without proper inquiry being made as to their qualifications and eligibility. This resulted in there being no properly recognised, well-defined standard. The same difficulties were found to exist in connection with the retiring of men, or their punishment for offences committed against the regulations, or dereliction of duty. Some officers went to the extreme and inflicted severe penalties, which, in many cases, were not justifiable and were out of all proportion to the offence committed. Others again took an extremely lenient view, and passed over in the lightest manner grave breaches of the regulations which should have been met by severe punishment, and in respect to which dismissal would, in some cases, have been justifiable. As the Railway business expanded and the staff increased it became more and more apparent that this system of engaging and dealing with men for offences committed against the regulations could not be satisfactorily followed, and it was essential that a standard governing the admission of men into the service should be set up, and a proper system adopted for the general control of the staff throughout the Dominion. The larger the staff the more necessary it became to alter the system in such a way as to insure the whole of the regulations governing the admission of the staff into the service being properly carried out. In connection with this I may say that, the Superannuation Act having been passed, it became more necessary than ever that the qualifications of persons joining the service should be very severely criticized. As long ago as 1889 the staff appointments were practically concentrated at the Wellington headquarters, and since 1896 they have been governed by the regulations made under the Government Railways Classification Act. All applications for employment are duly recorded, and applicants, in order to be eligible for permanent employment, must be of certain age, able to pass medical test, be a certain height according to age, have certain educational qualifications according to the positions they are to fill, and, if tradesmen, possess the necessary degree of expertness at their calling.

The Workshops staff comprises three sections—viz.,—

(a.) The permanent staff.

(b.) Term and regular casuals—that is, men who have made application for employment in the ordinary course in accordance with the regulations. These men are engaged for certain periods according to the amount of work that is available or in sight, and, if they are eligible and satisfactory in every respect, are employed in order of application, and may ultimately be attached to the permanent staff.

- (c.) The emergency casuals—that is, men who are taken on to meet sudden demands for day to day or hour to hour, and whose employment may last for a longer or shorter period according to the exigencies of the Department. The engagement of these men is made by the responsible officer in charge of the Workshops—the Workshops Manager at Addington, for instance, may employ emergency labour. Such men, if suitable and satisfactory in every respect, not infrequently ultimately become members of the permanent staff.

In filling vacancies on the permanent staff the casuals or others whose applications have previously been recorded, and who possess the necessary qualifications, are first considered, and, if eligible, are put on the probationary staff. Their retention or otherwise depends entirely on the manner in which they comport themselves and carry out their respective duties; and in regard to this the Locomotive Engineer, or the Workshops Manager, or foremen immediately in charge of the men concerned are the judges of the men's qualifications and capabilities, and are expected to promptly report to the General Manager as to whether the men are suitable or unsuitable for retention. Men whose work is reported as being unsatisfactory are not retained.

In respect to filling vacancies for casuals, it is the practice to supply officers on whose staff the vacancies occur with the names of a number of men who, by reason of their application, are entitled to priority in regard to employment. This is done for the purpose of avoiding any delay that might arise in the event of No. 1 man not being suitable. It is expected that the local officer will have sufficient initiative to take steps to at once communicate with as many of the applicants as he considers advisable, and arrange for them to present themselves for his inspection, selecting the man or men who are the most suitable to fill existing vacancies.

It is obviously the duty of the local officer, in communicating with the applicants, to fix a time within which they shall present themselves, and to make his selection from the men who respond within the given time. If the first man selected does not turn out satisfactorily, the district officer has to advise Head Office, and communicate with the other men whose names remain on his list and select from these. Where the lists become exhausted the local officer is given authority to select eligible local men who offer themselves for employment, *and has an entirely free hand in that matter.*

With regard to additions to staff, it cannot be expected, nor would it be in the interests of the Department, to blindly approve every requisition for staff that emanates from a local officer. The General Manager, who is responsible for the general administration and the expenditure of the Department, must necessarily exercise his authority, and not infrequently decline to authorise additional staff when, in his judgment, the supplying of the same would unwarrantably increase the expenditure without sufficient cause. It is the almost invariable practice to confer with the Chief Mechanical Engineer, as head of the Locomotive Branch, in respect to the employment of additional staff or the filling of vacancies that occur in the various workshops under his control, and it is not an infrequent happening for the Chief Mechanical Engineer to decline, for good and sufficient reasons, to recommend the requisition of the local officer for additional staff. In such cases the staff is not supplied. In special cases, however, where the local officer renews the application and gives a good and sufficient reason for so doing, the necessary arrangements are made to fill the vacancies if circumstances warrant.

Recently a new boring-machine was supplied to Addington, and, although there are a large number of competent turners in the shop, an application was made to take on a new man to work the new machine. This application was properly declined, and instructions given that a competent turner in the workshop should be placed in charge of the machine. If it is contended that, whenever a new machine or appliance of any kind is installed in Addington or any other workshop in the Dominion, a new man is to be taken on to work the same, it follows that as soon as an old machine is displaced by a new one the man who has been working the old appliance, and who may be thoroughly competent and in every respect fitted to take charge of the new machine and have been in the service for many years, would have to be dispensed with, because there was no opportunity of further utilising his services. It is manifest that a position of this kind would be utterly untenable. In connection with this matter I have had recommendations to dispense with a few turners in Addington Workshops which fully justified the course I have indicated.

Regarding the punishment of the men for breaches of discipline, unsatisfactory work, or general misconduct, the various officers in charge, as stated at the outset, take different views as to the gravity of the offence. If, therefore, a free hand were given them, offences of a similar nature would be met by widely divergent punishment according to the view taken by the district officer. It is therefore essential that the power of meting out punishment should be in the hands of the General Manager. In this connection I may say that all offences are dealt with by the Punishment Board, who make their recommendations to me. I invariably agree with the recommendations, but there are exceptions. The Punishment Board is constituted in this way: The Chief Mechanical Engineer, the Chief Engineer, the Chief Traffic Manager, and the Stores Manager. The Chief Accountant was a member of the Board, but it was considered that he could no longer hold that position, as he had been appointed by the Department to represent them at the Appeal Board cases. You can quite understand that it would never do for an officer who was meting out punishment to deal with those cases afterwards when they came before the Appeal Board.

When a member of the service commits an offence the local officers are expected to obtain a detailed report of the facts of the case, and submit same with their recommendation to the General Manager. Frequently the details given are not such as, in the opinion of the General Manager, would enable the offence to be properly adjudicated on, and further information has in such cases to be obtained. When it is considered that the full facts have been obtained, the case is referred to the Punishment Board for a recommendation, and the Board's recommendation is finally reviewed by the General Manager, who confirms the recommendation or otherwise as he considers the circumstances

warrant. The view taken by the Head Office is that no member of the service should be punished unless the offence with which he is charged is proven. Where the proof is clearly established, then such punishment as is, in the opinion of the General Manager, suitable to the offence is meted out.

The view expressed by the Locomotive Engineer, Addington, that foremen and other local officers should have the power to dismiss or otherwise punish men is not concurred in, for the reason that there would be no uniformity or equality of punishment for similar offences. This has been established beyond any doubt as the result of years of experience with a small staff, and the difficulty would be greatly accentuated in dealing with the large staff now employed in the service.

The statement of the Locomotive Engineer, Addington, that neither he nor the Workshops Managers nor the foremen have power to engage men has been made under a misapprehension. As I have indicated above, the Locomotive Engineer is given authority to select, from among the applicants whose names are submitted to him, men who are, in his opinion, suitable and qualified to fill the vacancies that are likely to occur on the permanent or casual staffs, and when the list is exhausted he is from time to time given authority to select from among the local men offering suitable men for positions on the casual staff, and has an entirely free hand in the matter of the selection of the emergency casuals as required. No doubt he in turn delegates this authority to the Workshops Manager and those foremen in whose judgment he has confidence.

Respecting the question of the trial to be given to the men on either the permanent or the casual staffs, the local officer has an entirely free hand, and is allowed to exercise his judgment untrammelled by any restriction. Clause 36 of the "Locomotive Code" provides specifically that "Incompetency on the part of persons selected for employment, either permanent or casual, must be reported at once." Attention has also been pointedly directed to the matter by circular instruction, which reads,—

"Some officers appear to be of the opinion that an incompetent person must be allowed to serve to the end of his probationary period before his services can be dispensed with. This is erroneous, and detrimental to the interests of the Department and the men concerned. Any probationer who fails to give satisfaction in the discharge of his duties, or shows evidence of being unsuitable for retention in the service, should be notified of the fact, and warned that, failing improvement, his retirement will be recommended. Should he fail to profit by the opportunity, particulars are to be forwarded to the Head Office with the recommendation of the district officer."

It has been found necessary to repeatedly direct the attention of officers to the various instructions governing the employment of the staff and to the necessity for a close adherence thereto, but, notwithstanding this, the Head Office has to exercise constant vigilance to prevent irregularities in connection with staff matters.

In the course of his evidence the Locomotive Engineer, Addington, stated that of the names given him it would be found that the first man was dead, another had left the district, and so on. The departmental records do not support the first statement. Since 1906 the names of 270 casuals have been given to the local officer for employment at Addington. The applications of some of these men had been on the books for a considerable time, and none of the applicants had given notice of any change of address. One hundred and fifty-two men were appointed, 4 had left the district or the Dominion, 23 had not notified change of address, 49 declined appointment, 8 were rejected as unsuitable, 7 were ineligible, none were dead. This leaves 27 in respect to whom the Head Office has, up to the present, received no notice as to how their applications were dealt with by the local officer.

Since July, 1906, 258 casuals have been engaged at Addington. The great bulk of the men appointed are those whose names have been supplied from Head Office roll of applications for employment. When the roll was exhausted the local officer at Addington was authorised to himself select men. The following are particulars of the men engaged and those of them who were dispensed with :—

Number appointed.	Occupation.	Paid off as unsuitable.		
		Number on List supplied by Head Office.	Number selected by Locomotive Engineer or Workshops Manager.	Total.
38	Fitters	2	1	3
20	Boilermakers .. .. .	..	2	2
12	Blacksmiths .. .. .	..	..	..
18	Ironmoulders .. .. .	..	1	1
1	Brassmoulder .. .. .	..	..	..
2	Patternmakers .. .. .	..	..	..
15	Turners .. .. .	..	1	1
2	Tinsmiths .. .. .	..	..	..
7	Trimmers .. .. .	..	..	..
5	Carpenters .. .. .	..	..	..
18	Machinists	1	2	3
19	Strikers .. .. .	..	..	..
101	Labourers and junior labourers	1	..	1
258	.. .. .	4	7	11

5. *The Chairman.*] I suppose, in dealing with the staff, you have some system of being assisted by some body of men?—There is a properly equipped Staff Office at Wellington. There is a special officer in charge of the staff, and he is assisted by the clerks who have had experience in such matters. The office is a properly organized one.

6. It has been stated that requisitions to administrative heads have not been given effect to. We presume that such requisitions are considered and dealt with by the administrative heads on their merits?—All requisitions receive careful consideration. They are dealt with by myself and the Chief Mechanical Engineer. They are not always acceded to, and for the following reasons: (1.) They may be considered unnecessary or extravagant. (2.) The requisition may be desirable, but funds are not available. (3.) In all cases where it is shown that the request is reasonable, and that compliance with same would expedite and reduce the cost of manufacture, the requisitions are complied with, subject, of course, to the necessary funds being available.

7. It has also been stated that the recommendations from the local officers for the discharge of men have not always been acted upon. Do you desire to give the Board any information on that subject?—I think my general observations with regard to the staff have dealt with that to a certain extent. But we do get certain recommendations with regard to men which are not given effect to, and for very good reasons. Take a case in point: A man may have been seriously injured in the service. He is not capable of doing a very hard day's work, but the management consider that under special circumstances it would be doing a cruel thing to discharge that man, and an endeavour is made to find for him suitable light work—that would be one case where a Workshops Manager possibly might say, "Well, by keeping this man on, the cost of work is slightly increased." But we are simply doing what any right-feeling employer would do, and what is done every day in private work. Another case where his recommendations would not be carried out would be where the recommendations were not considered reasonable and not in the interests of the service. In every case in which a request is declined there are always good and sufficient reasons for not acceding.

8. We had some evidence regarding inventions and devices brought forward by workmen to facilitate the carrying-out of their work. Without expressing any opinion on the particular devices which have been brought under our notice, we should like to know, in the case of a deserving workman who has done something to facilitate his work, and which has been adopted by the Department, if there is any system by which his invention or device is brought under notice of the proper authorities, and the workman, if it is thought that he deserves it, rewarded?—Every workman who considers he has a claim on the Department for the invention of a labour-saving appliance is quite within his rights in writing to his foreman drawing his attention to the fact that he has designed or invented this labour-saving appliance, and requesting him to forward the matter to the Locomotive Engineer, who will transmit it to the Chief Mechanical Engineer, who in turn will forward it to me. This officer, after going into the merits of the invention as a labour-saving device, should make a recommendation to me as to whether it is deserving of special recommendation. Quite a number of cases from time to time are dealt with in that manner, and they have received recognition. As a practical man, Mr. Chairman, you will understand that there is a large number of devices submitted to the Department which are by no means original, and, although they have not been in use in the New Zealand Railway Workshops, they have perhaps been in general use in other workshops. In many cases the Chief Mechanical Engineer is aware of the existence of these devices. We might take, for instance, the spark-arresting appliance. We were pestered from one end of the globe to the other. By some means, some years ago, it got into the English papers that the New Zealand Government had offered a reward of £3,000 for the invention of an efficient spark-arrester. Soon after it appeared we were flooded with designs of the most crude and impossible nature. It has toned down a bit now, after we have replied to hundreds and thousands of letters on the subject. Bonuses are granted from time to time to workers and others who introduce mechanical devices which are calculated to cheapen the cost of work. At the present time a workman at the Addington Shops has applied for a bonus—his device has been favourably reported on, and he has been granted a bonus of £10. The device is not original, but it was considered a reasonable thing to recognise the way in which he had adapted the tool for its special work. The matter stands there now, and we are making further inquiries into the matter. But in every case where it is proved to me that a man had introduced something which tends to cheapen the cost of work, I am always prepared to recommend the Minister to grant a special bonus. That is always the attitude I have taken up. But there are men who are paid for this class of work. As an apprentice, many years ago, I worked in the tool-shop, and spent six months there, and it was the work of the man in charge of the tool-shop to devise tools for doing special work, and he got no recognition for so doing—it was considered part of his duty. In like manner the Chief Draughtsman or the Chief Mechanical Engineer, in designing a locomotive, hits upon some happy idea which may make it more perfect; but he gets no special recognition for that. It is part of his duty. That is what he is paid for. Unless it is something very exceptional, there is no special recognition given to the First Division. It has been the invariable rule to recognise any special device which may be introduced by men in the Second Division. Possibly many of the devices which I hear about from time to time have never been reported to myself, and I may be ignorant of their existence, but in all cases where it is clearly shown that a device is of value, I am prepared, and always have been, to see that special recognition is given to the man.

9. *Mr. Hampton.*] You spoke of casuals being placed on the permanent staff from time to time. I should like to ask you, in the event of that being done, does the continuous casual time of that man count for superannuation purposes?—As a rule it does. I think I am correct in saying that.

10. In the event of one of these casuals being dismissed, say, by the hasty action of a local officer, he would stand to lose considerably in his old age?—The local officer has no power to dismiss.

11. But in the event of that power being given to the local officer?—All the man would be entitled to would be the moneys he had contributed to the fund; that is all he would draw.

12. Take a supposititious case. Say a man has been employed as a casual for five years, and local officers have the power to dispense with this man. That man, through, say, a hasty action of the local officer, is dismissed, but he afterwards shows that he was wrongfully dismissed, and is re-engaged—the whole of his previous time will be lost to him?—Not if he is reinstated by the Appeal Board, and the Appeal Board's finding has the Minister's approval.

13. As a casual he would have no right to appeal?—You are speaking of a casual appointed a permanent.

14. No; before he is appointed a permanent?—He would not be a contributor to the fund before he was appointed a permanent. He would not be a member of the service.

15. In the event of that man getting back to the Railway service?—Oh! you are referring to the break in casual service.

16. Yes: would that previous time count?—Yes, if he was reinstated. He would be paid for the time during which he was suspended.

17. He would not be suspended. As a casual hand he would be straight-out dismissed?—Oh! of course, he has not got that power at the present time. But in the event of straight-out dismissal, if the Appeal Board said that the dismissal was a wrong one, he would be reinstated and would not lose by it.

18. He would have to use other ways of establishing his innocence than through the Appeal Board, for as a casual he has no right of appeal?—As a casual, that is so.

19. Regarding these men who have brought about improvements from time to time, you said that they have applied to you for recognition: how long do you think it would take for a man to get a reply to such an application?—It all depends. The receipt of the letter should be acknowledged in the ordinary course—that is, formal acknowledgment—and it should take some time to investigate the merits of the invention. It might take months. But he would get there ultimately if the appliance was proved satisfactory.

20. Supposing you were told that one man at Addington applied for recognition and got no formal acknowledgment for nine months?—It may be possible, but I cannot answer for what the local officers do. I have no doubt, in a case of that kind, that the foreman would advise the workman verbally that he had forwarded on the letter. He might not have it in black and white, but he would be cognisant of the fact that the device had been forwarded.

21. Do you consider it possible that a man might have made application fourteen months ago and not yet got a definite reply?—I am not aware of any such case.

22. Do you think it possible?—All things are possible; but it is very improbable.

A. L. BEATTIE, Chief Mechanical Engineer, examined. (No. 28.)

1. *The Chairman.*] Have you had any comparisons made of the cost of similar work executed at Petone, Addington, and Hillside?—Yes, comparisons are regularly made when comparisons are practicable. I may state, for the information of the Board, that it is not always practicable to make comparisons as between Workshops, because they may be on different work; but when they are on the same work comparisons are regularly made month by month and on the completion of special orders. By way of illustration I will put in certain recent comparisons which I have made myself. [Return put in.]

2. What do you find is the result of the comparisons on a general average?—The results, as a rule, run fairly closely. Sometimes one Workshop is a little ahead of another, but that is very often accounted for by local circumstances. In one case it was with regard to the cost of local materials. I have dealt with that rather more fully in my address which I propose to put before you. For instance, for local contracts in particular centres, the rates for the supplies of iron and steel, and so on, vary as between Auckland, Wellington, Christchurch, and Dunedin. So that we will suppose Newmarket obtained material from an Auckland contractor at a somewhat higher rate per ton than, say, Addington from a Christchurch contractor, that would naturally influence the total cost of the job, and where you notice from that return I have put in slight variations, in most cases those are due to local variations in the cost of material. But such comparisons are regularly made and regularly recorded. I may say that any considerable diversity which is not accounted for by variation in cost of material is investigated very closely, with a view to ascertaining the reason, and with a view to putting the thing on a better footing.

3. The Board would like to know what contracts for points and crossings have been carried out by the Dispatch Foundry, Greymouth?—I have already put in all the information I have available with regard to points-and-crossings orders, and those go back to July, 1906. I have not anything antecedent to that. In that particular 1906 contract—which, I may say, was for points and crossings for the Public Works Department—the various tender prices are summarised in the return, and the Dispatch Foundry was a tenderer for supplies but was not successful. Prior to that date I have no information on the subject. I may say that the Dispatch Foundry has not made any points and crossings for the Railway Department for a great many years. I think I am right in saying that they did not make any for the Railway Department. I may also put in, in connection with the cost of Railway stock, a return which might be of interest to the Commissioners, showing the relative cost of importing certain **LA** wagons, having similar wagons built under contract in New Zealand by two different firms, and similar wagons built in our own workshops.

4. You have a system of accounting and cost-keeping with regard to work done in the shops. Do you find it satisfactory?—So far as I am aware it is generally satisfactory. To anybody not acquainted

with the requirements it might appear possibly somewhat complicated. It is, however, the result of years of experience, and it is the result of very close application on the part of experienced accountants cognisant with the requirements of departmental book-keeping, and I think I am right in saying that the book-keeping of the Government service differs somewhat from the book-keeping of a private shop. For this reason: that the Government Departments have to furnish very elaborate reports at the end of each financial year. The Railway Department, for instance, has to submit a full Railway Report to Parliament each year, which is of a most exhaustive nature. The accounting system, as I say, is the result of very many years' experience on the part of our expert accountants, and, so far as I know, meets the requirements reasonably well. I have already supplied the Commission with a set of the accounts.

5. I think you have two X engines completed and running?—Yes.

6. The Board would like to know the cost of manufacture?—We have two completed, and six more in the course of manufacture. The third engine is ready for shipment—that is, it is practically completed, but it is not re-erected at Petone. The fourth X boiler is almost finished, and the rest of the eight are in a more or less forward condition.

7. You are unable as yet to provide the Commissioners with the cost?—I have got the list here of the cost up to date for the wages and material for the engines proper, for the boilers, and for the smith-work; but that is spread over the whole eight, and the job-number for each of these items—engines proper, boilers, and smith-work—are three separate orders each for the eight engines. The quantity of the material imported for the purpose has been already charged to one or other of these job-numbers.

8. The reason you are unable to supply the particulars is that the batch of eight engines are being built simultaneously?—Yes, and being dealt with as one batch.

9. One of the witnesses, Fitter Sloane, mentioned that he had been in the service some twenty-three years, and was still rated as a casual hand, although occupying the position of tool-room fitter. Has this service been continuous or broken?—It has not been continuous. Fitter Sloane's statement was hardly complete. Fitter Sloane joined the service in 1887. In February, 1899, he voluntarily retired from the service to take up a position in the tramway sheds, thinking, so I understood at the time, that he was bettering himself. I know the circumstances. After going to that work in the tramway sheds for ten months, he came to Addington again and begged for a job. He had in the meantime discovered that he had not bettered himself. I remember the circumstances of his coming back. He was taken back into the shop, but on account of his age he could only come on as a casual. Prior to his leaving in February, 1899, he was a permanent hand, but after the break of ten months, necessarily, under the regulations, he could only join as a casual.

10. He was above age?—Yes. He was over thirty-four years of age, which was the maximum age at which a man could enter the service with a chance of becoming a permanent employee. His break was at his own instance, and necessarily he came back as a casual, and as a casual he has remained since. I might add that quite recently there has been some idea of putting certain casual hands, entitled or deserving of it, on to the permanent staff under certain conditions, one of these conditions being that he must pass a doctor. I regret to say that in Sloane's case he was unable to pass the doctor, and therefore still remains a casual hand. I would like to add, as a matter of information for the Board, that Fitter Sloane is a very excellent workman, and we regard him as such; but, unfortunately, through his own action he broke his service, and has naturally had to suffer.

11. He suffers under two disabilities—one broken service and the other inability to pass the medical examination?—Yes.

12. Can you tell us the reason for discarding the use of the drop-hammer at Addington?—The reason, I understand, is that in the first place steam-hammers were put on to do work which the drop-hammer did previously; in the second place, the drop-hammer was in an inconvenient location. Now that the amount of stamping has got almost beyond the capacity of the existing steam-hammers to deal with conveniently, it has been decided to bring the drop-hammer again into use. It has been removed to a new site, and will be used regularly for the purpose for which it was designed, as a supplementary tool for stamping purposes.

13. Do you prefer steam-hammer stamping to drop-hammer stamping?—That is a question that could be answered this way. It depends very largely on the nature of the work. There are many jobs which I would rather do under the steam-hammer, and others which I would rather do under the drop-hammer. It is very largely a question of the work.

14. Are you satisfied with the present arrangement of power-supply at Addington?—Not at all; and in my address to the Commissioners I have dealt with that somewhat fully on that account. It has been under consideration repeatedly to rearrange the Workshops machinery, and to either electrify or to group and drive by a suitable producer-gas apparatus. Up to the present, however, the large outlay involved has precluded any action.

15. What is your opinion as to the probable rate of increase or otherwise in the future of repair and new work at Addington and in regard to the railways generally?—Of course, with regard to the Hurunui-Bluff increase—I give it merely as my own personal opinion—the ratio will be comparatively slow. That I base on what I read with regard to the gradual extension in the settlement. So far as the North Island is concerned, if the extension of settlement goes on there as has been predicted by many people who should be in a position to give a sound opinion, I should imagine there will be a lot of work yet to be done at Addington for the North Island Railways in the matter of building engines and railway stock—more than the North Island can cope with on its own account. But, as for the rate of increase, I would not dare to put a definite value to it.

16. I suppose you could give the retrospective increase?—I could give you a portion of it, and will have it prepared for you.

17. The General Manager said he had heard that Price Bros. stood to lose on their contract, and believed that you were prepared with a statement to that effect ?—That is another matter I have dealt with in my address.

18. It has been stated by a witness that discontent is, or was, rife at Addington at a recent date. Do you know anything of this discontent ?—I know nothing of it, and, further than that, from inquiry I have made, I think the discontent, if there has been any at all, has been of very, very small dimensions. I think it has arisen simply from the fact that certain allowances were made by Act to men for specially skilful work, and at the beginning of the granting of this allowance certain men profited and certain others did not, and those who did not profit naturally made application for the consideration of their particular claims. These claims were considered, and were found to be justly based, and were dealt with satisfactorily. I believe that is the only scintilla of discontent that existed there, and I believe it was made much more of than it had any right to be.

19. What is your opinion of the working of the Classification Act ?—I think that has been very completely dealt with by the General Manager, and I do not think I can add any views of value beyond that. Mr. Ronayne has explained the matter in a way that leaves very little for me to say.

20. It has been stated that a scheme for electrifying Addington shop was prepared some years ago. Has this dropped out of view ?—Not at all. I have dealt with that in my address.

21. What is your experience of the working of the staff system, especially as regards the control of men by foremen and managers ?—I have no direct experience. I do not deal with the staff other than to recommend to the General Manager on the matter of numerical strength. Supposing the Newmarket Workshops, by reason of a temporary pressure of work, wanted, say, five blacksmiths and five strikers temporarily, after the application was made by Newmarket it would come to me for my recommendation. I might and should be in possession of the necessary knowledge as to what the state of work was in every other Workshop. It might so happen that at that particular time Petone, on account of certain work being almost completed, was in a position shortly to spare five blacksmiths and five strikers, and therefore, instead of taking on five or ten new men at Newmarket, I should recommend the General Manager to arrange to transfer the work to Petone, where they already had a staff qualified to deal with it. We have over a thousand men in our combined shops, and it does not always follow that, because one shop is not able to do one lot of work with its present hands, that work cannot be satisfactorily undertaken in one of the other shops without an increase in the hands employed.

22. You have not found that the power of foremen and managers was weakened in any way by the existence of the staff system ?—The matter has not been reported to me. It would not be reported to me in any case. Matters dealing with the staff are reported to the General Manager's office, and would not come under my review.

23. It was not a matter of your own observation, when Locomotive Engineer, that the staff system had the effect of weakening the control of foremen and managers ?—It is the duty of foremen to report immediately any deficiency in the staff under them. If it is their duty to report it, and they do not report it, then they are blameworthy.

24. We heard that gear had been taken off engines at Addington to supply Messrs. Price Bros. Can you tell why this was done ?—Yes. Messrs. Price Bros.' contract to build locomotives provided that they could purchase certain portions of the engines from us, we undertaking to supply these on certain dates, or, at any rate, as required. It has happened that by reason of the non-arrival of certain material—owing to delays in London or in transit; in one case by reason of the loss of a ship—we have had to take gear from our own engines in order to keep our bargain with Price Bros.

25. Are these fittings supplied at specified rates ?—They are supplied at rates enumerated in the plans and specifications. For the information of the Commissioners I have had these extracted and summarised in a convenient form. [Summary put in.]

26. Are those rates found to be payable rates ?—Yes.

27. A charge of 15 per cent. is made to cover fixed or overhead charges at Addington. Can you tell us how this sum is arrived at—what it includes ?—Yes. In that connection I might say that that 15-per-cent. rate was fixed on the recommendation of a special Royal Commission set up in 1876 to deal with Railway matters, and has been in practice from that time to the present. The items charged against this 15 per cent. are as follows: Watching shops; storeman's wages; repair and Workshop engines; general charges, Workshops (includes cost of upkeep of machinery and tools, coal for smith's fires, and pumping water); fire-brigade practice; foremen's wages; jury and witness pay (amount received by employees is collected and credited to this order); time of employees attending Appeal Board; stationery for Workshops; holiday pay; contingency vouchers; wages of shunter, Addington Yard; apprentice accident pay; apprentice sick-pay; apprentice holiday pay; clean up shop-yard; pack and unpack effects of Workshop employees transferred; work Workshop steam-crane. I might explain that if an employee goes away as a witness or as a juror and is paid a fee, and at the same time receives his salary during the time he is away, when he comes back he pays in the amount he has received by way of fees.

28. Are blacksmiths' steam fires not a charge against the shop ?—No. We make a special charge in certain cases, but usually for repair-work and small work it is impossible to debit the coal against each individual job, and it is charged against the smith's shop. In specially big jobs the coal is charged to the order-number.

29. Does experience show that this 15 per cent. is sufficient to cover all this ?—Our experience is that it does. I have in my hand particulars for several years back, and in each case, and up to the present time in this current year, we find that the amount has fully covered the charges against the particular item. I might possibly, for the information of the Commissioners, give a little information which I have in my possession with regard to the practice elsewhere in regard to railways. I might point out that the practice of railways is not necessarily on all-fours with that of private shops where

profit-making is the primary consideration. The Midland Railway, England, charge 10 per cent. on labour only. I think it is clear, of course, to the Commissioners that our charge is 15 per cent. on labour and 15 per cent. on material, and, assuming that the labour and material were approximately equal, that would be a total impost of 30 per cent. The Midland Railway, as I say, charge 10 per cent. on labour, and nothing on material. The Great Northern Company, England, charge 20 per cent. on labour, and nothing on material. The C.P.R. Company charge 10 per cent. on labour. The Grand Trunk, Canada, charge nothing either on labour or material. New South Wales Railways charge 32½ per cent. on labour, and nothing on material. South Australian Railways charge 30 per cent. on labour, and nothing on material. The Queensland Railways charge varies from 12½ per cent. to 17½ per cent. on labour, and nothing on material. The Victorian Railways charge is 20 per cent. on labour, and nothing on material. They also charge 1 per cent. depreciation on material. I do not understand what it is, but it is 1 per cent. additional to their 20 per cent. on labour. In addition to our 15 per cent. on labour and 15 per cent. on material, we also charge 4d. in the pound to cover the handling of stores.

30. That is what you call Stores commission?—Yes; that covers the Stores cost of handling material.

31. I do not quite follow you: that 15 per cent. on wages and 15 per cent. on material is 30 per cent. on the job?—I said that if both labour and material were equal. If the cost was £500 for wages and £500 for material, that is 30 per cent. on £1,000. That is how I figure it out; I am open to correction.

32. I think what you meant was that if labour and material were equal, and you charged 15 per cent. on labour and 15 per cent. on material, that would equal a charge of 30 per cent. on labour?—Yes. That is really what I had in my mind at the time.

33. A witness made a statement that Addington shops lost eight hours per month on belt-replacement. Do you think that is correct?—No, I have looked into that since the evidence was given, and I find it is not borne out by facts. There is very little time lost—certainly nothing equal to that amount, and the statement was made, you will remember, in connection with some suggestion about a belt-shifter. Belt-shifters were tried during my own apprenticeship, but up to the present time they have not been found to be a very great advantage except on very small belts. The time which would be lost at Addington, and to which the witness referred, I presume, was due to the main driving-belts. I take it that a belt-shifter, as usually known, could not be used for putting on a main driving-belt. Occasionally a main driving-belt might be carried away, and would cause a stoppage, but that is a very infrequent happening. I do not think the facts bear out the evidence you have before you.

34. *Mr. Hampton.*] When you were Locomotive Engineer at Addington did you have any difficulty in connection with the dismissing of men?—It is a good many years ago. I cannot recollect if I had any difficulty. I have no case in my mind.

35. It has been suggested during the inquiry that local officers should have greater powers with regard to the dismissal of men. Do you think that necessary?—I do not care to express an opinion definitely. Personally I had no difficulty when Locomotive Engineer at Addington ten years ago.

36. It has been suggested that the time taken in dismissing men when work runs out is rather lengthy. You did not find that the case?—I have no recollection of finding it the case.

37. Is it the case that there are men at Addington who have been there as long, say, as eleven years, and have passed the doctor, and are still casuals?—I cannot tell you. I do not know. It does not come under my review.

TUESDAY, 30TH MARCH, 1909.

A. L. BEATTIE, Chief Mechanical Engineer, examination resumed. (No. 29.)

1. *The Chairman.*] The Commissioners desire a little more information on the return handed in yesterday. We are not quite clear what patterns are charged to?—Patterns for new work are charged to the job.

2. We understood that patterns were manufactured to one order-number?—Not for new work—they are charged to the job. For example, the patterns for A class engines were charged to the first batch.

3. Ordinary patterns—are they charged against the Workshops commission, or generally?—Against commission—that is, for stock patterns. Patterns for new work are debited against the new-work order.

4. The men's accident pay, what is that charged to?—Against the Workshops.

5. The Government make contributions to the Superannuation Fund. As far as the workmen in the Workshops are concerned, is any portion of the contribution charged against the Workshops?—I am not aware that the Government make any contribution. It is a Government guarantee. In the meantime the fund has been more than self-supporting from the contributions of the staff. The Government's liability is merely a guarantee that in the case of any deficiency—which has not occurred, and which we hope will not occur—the Government will contribute.

6. What is the Workshops Manager's salary charged against?—Against the Workshops.

7. And his staff?—Yes. All salaries are charged against the Workshops commission with the exception of the district officers'.

8. New machinery?—In certain cases new machinery is charged against capital.

9. That is, the Capital Account, and in no way charged against the Workshops?—Charged against capital, I think.

10. The Workshops Capital Account is the general Railways Capital Account?—Yes. There are quite a number of lesser appliances which are charged against the Workshops Commission Account, but any large outlay is charged to capital.

11. Is any allowance made for depreciation of machinery and charged against the Workshops?—There is no Depreciation Fund; everything is maintained, and the cost of maintenance is charged against the Workshops.

12. Rent of buildings?—No rent is charged.

13. Repairs of buildings?—I could not myself tell you how the cost of repairs is dealt with. All the repairs are done by the Maintenance Branch.

14. At all events, there is no charge against the Workshops?—Not as far as I am aware.

15. I suppose something is placed to the depreciation of buildings?—Yes, I think it is.

16. Is there any insurance on plant and buildings?—Not as far as I am aware.

17. It is not charged against Workshops, at all events?—No.

18. Stores, oil, waste, &c.?—All that is charged against the Workshops.

19. Comes out of the commission?—Yes.

REPRESENTATIVES' ADDRESSES.

Mr. Hampton, Representative of the Workshops Employees.

I am very pleased to be able to say that my duties on this occasion, as the workers' representative, have been very light indeed. No attempt has been made by Mr. Ronayne or by his informant to prove or substantiate in any way the charges which were made in the famous memorandum. On the contrary, Mr. Ronayne has now practically unreservedly withdrawn those charges, and his informant, whom we have every reason to believe is the Hon. Mr. Jenkinson, has also made no attempt to substantiate or prove anything whatever against the men at Addington. That being so, I say again, my duties have been very light. My duties have been further lightened by the evidence which has been brought forward by Mr. Beattie on behalf of the officers, and my duties have been still further lightened by the keen desire which you, Mr. President, and other members of the Board have exhibited to arrive at the true facts of the case for yourselves.

I do not propose to enter into an exhaustive *résumé* of the evidence, but I merely propose to take the scope of the inquiry clause by clause, and touch upon the different points as I think they affect the men at the works. The first clause, then, is "efficiency of the plant and appliances." I have noticed that you, as members of the Board, have closely questioned the various witnesses that have come before you on this point. You have paid several visits of inspection to the works, and I have no doubt that you will carefully weigh the evidence heard, and, as a result of the observations you have made, you will make recommendations in accordance with the evidence and in accordance with those observations. On that point I do not wish to say anything further.

I now come to the second clause, "the system of work adopted." I do not propose to enter very fully into this subject further than to point out what I consider an injustice which has been done to the men under part of the system. I refer to what is known as the holiday "rushes." At those times, more especially in the fitting department, men are called upon to work overtime. Very often a man is called on to work on throughout the night into the small hours of the morning, but he is only paid at the ordinary rates—more often than not that is the case, owing to the subsequent holidays which are the cause of these rushes. This circumstance has for years caused a great deal of dissatisfaction among the men throughout the Railway service, and we think it is only fair that these men should be paid overtime rates for this work. It is not their fault that they are sent home for these subsequent holidays; but you, I am sure, will recognise that it is an entirely different thing to call upon a man to work sixteen hours a day at a stretch from working eight hours in an ordinary day. I hope, therefore, that when the Commissioners are considering the system of work they will bear this matter in mind, and make such recommendations to the Minister as will cause an alteration of this system to be made and some greater measure of justice to be given to the workmen.

Now I come to what I think is the main point of the whole inquiry in so far as the men are concerned. I refer to clause 3 of the order of reference, "the discipline maintained." There has been a good deal of evidence on this point. In fact, I think a great part of the evidence has been given in connection with this clause. We have, in the first place, the evidence of the officers. We have the evidence of Mr. Ronayne himself. He is perfectly satisfied now from the reports which he has received, and also as the result of his own observations, that the discipline at Addington is as good as elsewhere. Mr. Jackson, the Locomotive Engineer; Mr. Richardson, the Workshops Manager; and all the Workshops foremen have spoken in terms of the highest praise of the discipline maintained. And then we have the evidence of outside officers—the evidence of Mr. McCarthy, of Mr. J. H. Fox, and also that of Mr. Forbes, of the Petone Workshops—all of whom spoke in terms of the highest praise of the workmen at Addington in so far as discipline is concerned. But in case the Commissioners should think that these men are in some way themselves incriminated in the charges which have been made, and that their evidence to that extent is liable to be biassed, I would direct your attention to the evidence of independent outsiders who have come before you. I should specially like to emphasize the evidence of Mr. Robertson. Here you had the evidence of a man who had every facility of seeing the work going on in the Workshops. He was practically on the premises daily for a period of something like two or three years. He had the whole run of the place, as it were. And what do you find him saying? Mr. Robertson said he had every opportunity of seeing what was going on at the Addington Workshops. He thought the New Zealand workmen, especially those at Addington, compared more than favourably with the men in outside shops—the charge of loafing was, in his opinion, untrue. Then, sir, we had the evidence of Mr. Mauchlin, another outsider. He was at one time, as he stated in his evidence, an

employee in the Workshops, and he should know of what he is speaking. He now holds a responsible position with an outside private firm. Mr. Mauchlin said he did not think any more idling took place at Addington than in any other shops: if anything, the discipline was more severe than in outside shops. Then, again, there was the outside evidence of Mr. George Scott, who said that the men at Addington were at present doing all they possibly could under existing conditions. Then we had the evidence of Mr. James Hislop, who is now an entirely disinterested person—a retired Railway servant. He seems to have had a good deal of experience in private employment. Mr. Hislop said he worked as hard at Addington as he did in any other place, including the shop of Messrs. Price Bros. Then, again, if you want further outside evidence, I would quote our friend the Hon. Mr. Jenkinson. Mr. Jenkinson said he was in the habit of visiting the Addington Workshops twice yearly. He did not notice any loafing on the part of the men when he visited Addington. Regarding the riveting, he did not complain of the work of the men. That evidence is all in favour of the men. On the other hand, as against the men, we have but little evidence—practically none. The only evidence we have which could be taken as against the men is that of Mr. Jenkinson, where he said he had heard that men were in the habit of speaking to their foremen in insulting language. I do not think you could possibly accept hearsay evidence of that sort. Mr. Jenkinson had no practical knowledge of anything of that kind happening, and the various officers who have been before you giving evidence have all stated that they know nothing of such language having been used. I think, then, sir, that you will find on this point the character of the men has been completely vindicated. I hope you will make this clear and emphatic. I notice that some of the newspaper Press—the country Press especially—are making statements to the effect that Mr. Ronayne has withdrawn his charges under political compulsion, and have practically said that there is no doubt that the charges were perfectly true. I hope you will make your finding on this point so plain and so emphatic as to disabuse the minds of those gentlemen for all time as to the state of discipline in Addington Workshops.

I will now pass on to the cost of production at Addington as compared with the cost in other shops, whether Government or private. A very large amount of evidence has been put before you on this point by Mr. Beattie. I have no doubt that you will carefully examine the tabulated statements and the returns put in, and if you do this I have every confidence that your finding on this point will be favourable to the Addington Workshops.

Passing on from that I come to clause 5—the output: whether it is reasonable in quantity and quality having regard to all the circumstances. Now, I should just like to refer to some of these circumstances which you as Commissioners will have to take into consideration in dealing with this clause. I would first bring under your notice what has been brought out in evidence—the mixture of the work: that is, the repair-work and new work being all done in one shop, and the taking-away of men from the new work for repair-work. That is a disadvantage. I think it should be taken into consideration. There is also another fact which should be taken into consideration in considering this point, and that is that it is only possible to complete one locomotive at one time. That, I think, is also a disadvantage. I would direct you, sirs, to a further disadvantage under which we at Addington labour—that is, the preference which seems to be given to the firm of Messrs. Price Bros. in getting out work. It has been shown in evidence that gear has been actually taken from an Addington engine to be sent away to the firm of Price Bros. That means that Addington men have to do their work twice over as against once to the employees of Price Bros. The evidence further showed that Price Bros.' work had a priority of claim on the machines, and Addington work has been pushed on one side whilst Price Bros.' work has been pushed ahead. That is another circumstance which I think might well be taken into consideration. Then, of course, I would ask you to consider the quality of the work. Evidence has been given showing that the quality of the work at Addington is unsurpassed. Mr. Ronayne himself has never had any fault to find with the work at Addington. He declared that, so far as the quality was concerned, the Addington shops could hold their own with any shop in the world. He made that statement having but recently made a tour of Canada, America, and England. I would therefore ask you to take that fact into consideration in considering your finding on that clause.

And now, sir, I come to the last but to my mind by no means the least important clause of the whole scope of the inquiry. That is the clause which demands that the Commission shall inquire into any matter calling for alteration or improvement in the interests of efficiency or discipline. I will divide this into two parts—efficiency and discipline. I will take first the interests of efficiency, and under this heading I would ask you to consider the necessity of making some recommendation by which men may be encouraged to work out new devices and new inventions. I am asking this quite apart from the merits or demerits of any inventions or devices which have been brought before you in evidence. I think that the men at Addington generally think that something more should be done in this connection than is done under the present state of affairs. The process which Mr. Ronayne outlined yesterday appears to us to be a very slow process indeed. Mr. Ronayne informed us that when a new invention was devised the man devising the same could report it to his foreman. His foreman would report it to the Workshops Manager, and the Manager in his turn would pass it on to the Locomotive Engineer, who in his turn would pass it on to the Mechanical Engineer, who in his turn would pass it on to the General Manager. Now, I think that this is a fairly slow process. I have here a copy of a letter which an employee sent in to the Head Office asking for recognition for various devices which he had brought about. He waited for nine months before he got a reply from the Head Office, and then it was practically simply to say that his devices and inventions were under consideration. When I saw that employee last those devices and inventions were still under consideration. How long they are likely to be I do not know. But, apart from the slow process, I think the system can hardly be said to be a satisfactory one. I think it hardly reasonable that, if a man has a device which he considers to be of any value, he should be asked to run off and give his idea away to five or six practical expert men. Before that is done I think the man should be allowed, in order to protect himself, to

take out a provisional patent. Of course, he will have to pay the fee himself, and if he has confidence in his own idea, and is willing to pay his fee, then I think he should be allowed that privilege. I would ask you, then, to carefully consider this matter. It is a matter in which the men are deeply interested, and I would ask you to make such recommendations as would bring about greater improvements in this respect.

There is just one other suggestion which has been made to me by some of the men. They have said that in factories or workshops in America there are suggestion-boxes placed round the works, and employees are invited to place suggestions in those boxes, and if they prove on investigation to be of any merit they are granted some bonus for the suggested improvements.

Under the heading of efficiency, and also of lack of discipline, I would draw your attention to the necessity which seems to exist, according to the evidence, for the appointment of a leading hand in the blacksmiths' shop. According to the evidence, Mr. Cole, the blacksmith foreman, has ninety-one men under him at present, and he has three hours' office-work a day to attend to. Mr. Richardson, the Workshops Manager, in the course of the cross-examination by myself, admitted the necessity for such an appointment. He saw the necessity now for the appointment of a leading hand in the blacksmiths' shop. I would ask you, then, to make such recommendation. Whilst I am on the question of leading hands, I would also like to refer to the case of Gasfitter Turner. Here we have a man who, according to his evidence, has charge of the fitting-up of the American and other cars with the water-service and Westinghouse brake. He did not do all this himself. Mr. Turner has had under him at one time as many as eleven men, and invariably has as many as two or three men under him—more often than not that is the case. Yet this man is only in receipt of the ordinary rate of pay. Why the Department has not previously recognised this man's services is a mystery to me and to many others.

Now I come to another question which has been touched upon a good deal during the evidence—the question of the engaging and discharging of the staff. As regards the engaging of the staff I am not concerned. There seems to be a difference of opinion on that question amongst the officers, and I am prepared to leave it to them to fight it out. But I am concerned with regard to any recommendation you may see your way to make regarding the discharging of men. Mr. Jenkinson and Mr. Scott both seemed to think that the officers should have some power as regards discharging the men. Now, sir, does there really exist any necessity for a change from the present system? I think, if we look through the evidence carefully and examine it, we shall find that there has not been shown any necessity for a change. Mr. Jackson stated, in the course of cross-examination by myself, that he had full powers, and that the Workshops Manager had power to suspend a man in the event of insubordination. Mr. Jackson further stated, in reply to a question by myself, that in the event of his reporting a man to Wellington for insubordination he would have no difficulty in ridding himself of him. Mr. Fox also stated that he found no difficulty whatever in enforcing discipline in the various shops which came under his control from time to time. As regards discipline, it is perfectly clear that there at the present time exists no necessity for a change. The Manager, as I have already said, has power to suspend a man for insubordination. During the time of suspension the man suffers complete loss of pay, and therefore he (the Manager) appears to possess full powers to enforce discipline. But, as regards the point of view of efficiency, it might be ruled that a change is necessary. I would, however, direct your attention to Mr. Beattie's evidence as given yesterday. Mr. Beattie did not remember experiencing any difficulty in the discharging of men during his time as Locomotive Engineer at Addington. Now, it is only fair to assume from that evidence that had Mr. Beattie laboured under any disadvantage in that respect he would not readily have forgotten it. Then, as against any change, I would further point out that Government men differ from men in private employment, and have a good deal more at stake. They have more to lose in the event of dismissal than a man in private employment. It is all very well for Mr. George Scott to say that the Manager should have more power, but I contend that a man in Addington is on a different footing altogether from a man in Mr. George Scott's employ. If a man is dismissed from Mr. Scott's employ he can go to some other employer and secure a situation, and that is the end of it; but a dismissal from the Government employ involves more than that. So far as I know, there is no private employer in the Dominion who makes any provision for the old age of his employees. That is a matter that is done privately by the employees themselves, and is unaffected by any dismissal from one employer. I would, however, point out with regard to the men at Addington that with their employment is bound up their provision for old age, and if they are dismissed that has a detrimental effect. I contend on that ground that the men should only be dismissed after very close investigation, and it should not be made possible for one individual to hastily dismiss any man, and perhaps unduly affect the provision which he is making for his old age.

Now, sir, it may be and possibly will be argued that there is no intention to in any way interfere with the permanent staff, and that it is only they who benefit under the provisions of the Superannuation Act. But I would point out that this is not so. There are casual men in the service who have hopes, and who indeed have already been promised by the Department, that they will be made permanent men, and who are looking forward to participate in the benefits of the Superannuation Act. Some of these men, to my own knowledge, have as much as eleven years' casual service. In the event of their being placed on the permanent staff the whole of that continuous eleven years will count for superannuation purposes when they have reached the age of sixty years. If one of these casual men with eleven years' service was hastily and unduly dismissed by his superior officer, it means a loss to that man—say he was in receipt of 10s. a day—at the age of sixty of 11s. per week. That being the case, I consider that casual men should only be dismissed after the position has been carefully reviewed and reconsidered. I would point out further that a casual man has no right of appeal. He would have no way of showing that an injustice had been done him. But it may be said that there is no likelihood of such an injustice being done. As against that I would direct you to Mr. Ronayne's evidence. Mr. Ronayne stated this in evidence yesterday, and I would particularly ask any officers present to

notice that these words are not mine but Mr. Ronayne's. In speaking of this system which was in vogue some years ago of allowing the local officers full control of men, Mr. Ronayne said, "Some officers inflicted severe penalties, out of all proportion to the offence." Those are the words of a man experienced in railway-work. If it were possible years ago for officers to act in this way I suppose officers would still do so. I would also request you, then, to carefully weigh the evidence on this point before you make a recommendation which would bring about some alteration in the present system. I would also ask you to carefully consider the evidence of Mr. Beattie yesterday. Mr. Beattie pointed out very clearly that whilst work might be scarce in one shop it might be plentiful in another. It might be possible for him to transfer orders from one shop to another. If you give the Workshops Manager the power to dispense with men, he might dispense with men because there was no work in hand. If he has, as is now the case, to report to Wellington, it might be possible for Mr. Beattie to send work from another part of the Dominion, and thus keep these men employed and keep their service from being broken. I ask you, therefore, to consider all these various points, and not to recommend any departure from the present system, at any rate inasmuch as it affects the discharge of the men.

And now, sir, to conclude: I may add that I think it is in the best interests of the Department, and the men, and the people of this country that any future statements of a like character to those which have been the cause of this inquiry being held should be accepted with some degree of caution, and full investigation made before they are given broadcast to the Press and the public to talk about. If this course had been followed in the present case I feel sure that this inquiry would not have been held.

I must thank the Board for the courtesy, and consideration, and latitude which it has extended to me whilst acting as the men's representative. If I have transgressed in any way I can assure you it has not been done intentionally, but from a want of knowledge and experience on my part, and I trust you will accept this as my explanation for so doing. I wish also to thank Mr. Thomson, the Secretary of the Board, for the courtesy and consideration he has extended to me. I am sure that some of us at times have rather taxed his patience, but I trust he will accept our apologies for so doing. I would also like to thank the representatives of the Press for their very fair reports which have appeared from time to time.

And now, Mr. President and gentlemen, so far as I am concerned the whole matter is in your hands. I believe you will carefully weigh the various points which you have been asked to give a decision upon, and I believe that the decisions which you will give will result in the complete vindication of the character of the men. I believe also that improved facilities will be given to the men at Addington, and that they will be enabled thereby to make Addington Workshops what they all desire it to be—the leading Workshops in the Dominion.

Mr. A. L. Beattie, Chief Mechanical Engineer, Representative of the Officers of the Railway Workshops.

With your permission, sirs, I propose summarising in the order of reference certain remarks on the evidence already before you.

With regard to the efficiency of the plant and appliances at Addington, I might state that since I became Chief Mechanical Engineer, in 1900, additional plant and machinery for Addington Workshops has been supplied to the value of £30,761, and building additions to the value of over £10,000, making a total of nearly £41,000 in nine years.

It has been fully recognised, however, that the Addington plant and accommodation was insufficient for the rapidly growing work, and various proposals and schemes were from time to time put before the General Manager and discussed with him. The funds available and allotted each year for additional machinery were, under the General Manager's approval, expended to the best advantage of all the Railway Workshops in the Dominion—for it should be remembered that additional plant was needed in other Workshops besides Addington.

It has been under consideration for a number of years past to rearrange certain machinery at Addington, more especially that in the machine-shop, and also to increase the accommodation. In connection with this the question of electrification generally of the motive power has been repeatedly discussed and considered, but the large outlay involved has so far precluded its adoption.

A scheme for the electrification of the Addington overhead cranes only, apart from the general machinery, was considered in 1904, but the estimated cost of that reduced installation was £5,000, which outlay had to be postponed, funds not being allotted for this work.

For the overhead gantry above the new or larger hydraulic riveter at Addington a 20,000 lb. pneumatic portable hoist is in order. This pneumatic hoist will answer all present purposes at the large riveter, and, in the event of general electrification at Addington, would come in usefully for a smaller Workshop.

Approval was obtained from the General Manager to have the necessary alterations made to Addington iron-foundry building to admit of a suitable pneumatic hoist being used for all heavy lifts, and this work is about to be carried out.

In view of the contemplated schemes, both electrical and producer-gas, for improving the motive and lifting power at Addington, probably necessitating a central power station, steam requirements have meanwhile been met by using spare locomotive-boilers as auxiliaries to the original fixed boilers.

The Hon. Mr. Jenkinson, in his evidence, stated that less than a hundred rivets per day were got out of the new hydraulic riveter, and that he was not overstating the case in saying that each rivet took over five minutes. As a matter of fact this machine puts in, in some parts of a boiler, over one rivet per minute, but in the more awkward parts the rate is necessarily much slower. Taking the riveting of the whole of an X class boiler, including placing in position, raising, lowering, &c., with the present hand-gear, the average per day is 200 rivets. With the pneumatic hoisting-gear on order

this rate of riveting will be very materially increased. It must be remembered that, in riveting up $1\frac{1}{2}$ in. rivets in a locomotive-boiler to carry a working-pressure of 250 lb. per square inch, the greatest care is essential to insure sound work.

The plate-bending rolls at Addington meet all ordinary requirements, and as only eight Class X boilers had to be made it was not considered necessary to import a specially heavy set of rolls for curving the eight seven-eighths cone-plates, it being known that the bending could be done in a private foundry.

Mr. Jenkinson's evidence as to machinery generally at Addington Workshops would appear to have been based on insufficient information. Although some of the machinery is old, and not up to date, it is still serviceable and doing useful work. With a view to increasing the daily output of work from the older machines which were built to use the old-fashioned carbon tool-steel, the strengthening and adaptation of such machines as are suitable has been commenced in order to enable modern high-speed tool-steel to be used. In Addington Workshops there are also a large number of modern and thoroughly efficient machines.

Although desirable to replace old machinery with the most modern tools, the cost of doing so would be very considerable and, in some instances, hardly warranted. It has been recognised that additional steam-hammers and other tools would be beneficial in the blacksmith and boiler shops, and as funds are allocated these will be provided.

A hydraulic flanging plant is not an essential at present: the maximum number of new boilers made each year for the whole of the railways does not exceed about twenty. Twenty locomotive-boilers would involve the flanging of 100 plates, which would only occupy such a costly plant a very small proportion indeed of the year.

Desiring in 1906 to ascertain particulars of improved methods and machinery in use in the principal Australian Railway Workshops and private foundries, our Workshops Managers from Addington and Petone were sent across to Australia to take detailed notes as to how the work there was arranged and executed, to note also special plant, machine tools, appliances, processes, and methods, or anything else likely to be of interest in New Zealand Railway Workshops, either for new or repair work. On the return of these officers they recommended that certain machines should be procured for Addington, and these machines were duly obtained, with the exception of two, one being a hydraulic flanging-press, and the other a mangle for straightening frame-plates for new locomotives. These two machines together were estimated to cost, put to work, nearly £5,000. As I have already pointed out, there is now, at present, not nearly enough flanging work for a big press. As to the mangle, which is a special machine for straightening new frame-plates for locomotives, our present output of new locomotives averages about ten a year, the frame-plates needed for which the mangle could handle in less than a week. The expenditure on such a special appliance was considered to be unwarranted in the meantime.

The question of improved overhead lifting-gear was also reported on, and my remarks on the subject have been already put before you.

In Hillside Railway Workshops a number of self-propelling travelling steam jib cranes have been built. These cranes have a lifting-capacity of 7 tons. The jibs can be raised or lowered under load, and cranes can be used either inside or outside the Workshops buildings. The Railway Workshops at Addington, Hillside, Petone, and Newmarket each have one of these cranes in regular use.

Regarding Mr. Jenkinson's statement that there were no pneumatic hoists at Addington Workshops, I would point out that these works are provided with a large air-compressor, air being led to the various shops. Practically all the machines doing heavy work are equipped with pneumatic hoists, some imported, and others made at Addington. Many of these pneumatic hoists are carried on travellers, so that they may be moved, with their load, about the shop.

All shops are provided with pneumatic drills, chipping-chisels, &c., and these are being added to each year.

Regarding the system of work adopted, the Workshops Manager issues orders for work to the different foremen concerned, who in turn arrange with their leading hands its distribution amongst the respective workmen. Charges for labour and material are dealt with on the various Workshop accounting forms, specimens of which forms have already been furnished for the information of the Commissioners. On completion of the work the Manager is advised by foremen on forms prescribed for that purpose.

Re the discipline maintained: The evidence already before the Commissioners is, I submit, conclusive on this point. The informant's allegations made to Mr. Ronayne, and embodied in the letter which Mr. Ronayne directed should be sent on to Addington for searching investigation, were, I submit, unwarranted, and have not been substantiated. From my own personal knowledge and observation I am satisfied that the officers do maintain efficient discipline.

Re the cost of production at Addington as compared with the cost in other Railway Workshops or private establishments, I submit that the cost of work executed at Addington compares favourably with that of any other Railway Workshops in the Dominion. The cost of doing similar work in the different Railway Workshops is liable to vary somewhat, and a comparison is the more difficult from the fact that Addington manufactures a proportion of the new work for the other Workshops. Then there is a variation in the local rates for material, each centre having a local contract for the supply of material. When a marked variation occurs in the cost of similar work done in any Railway Workshop the cause of the difference is closely investigated. I have put in, for the information of the Commissioners, a return showing the cost of manufacturing various classes of rolling-stock in different Workshops.

A new design of double-ended suburban tank engine, Class Wf, was put in hand at Addington in 1903. A complete set of new patterns was made and charged against the order for building these engines. Then, in consequence of inadequate accommodation and pressure of ordinary repair-work, the engines had

to be built one at a time instead of being carried through in sets. In any new design some alterations are found to be desirable, and such alterations were charged against the building order. These engines were completed ready for service at a cost of £3,018 each. About a year later six engines of a similar type were built at Hillside. These engines were built under much more favourable circumstances, and were laid down in sets of three. The original patterns were supplied free of cost, and, in addition, Addington supplied to Hillside all bronze, brass, and steel castings, complete boilers, all heavy forgings, quartered the coupled wheels, &c. There were no alterations to be made, and we were able to push the work through. These engines cost completed ready for service £2,628 each.

Comparing our costs with those of outside establishments, I might mention that shortly after the Wf engines were put in hand at Addington tenders were invited for the building in the Dominion of ten more of these engines, Messrs. A. and G. Price, of Thames, securing the contract. The engines built by Messrs. Price cost complete ready for service £2,940 each. Messrs. A. and G. Price afterwards built two more of the Wf engines for the Public Works Department, at £3,000 each, without Westinghouse brake, the cost of which would have been £140 per engine extra. For all these engines Addington Workshops manufactured, at an agreed-upon rate, all wheels, axles, and crank-pins complete, bronze castings, and certain heavy forgings; Hillside Workshops manufactured for all these contract engines the laminated springs, lamps, &c.

In November, 1904, orders were issued to Addington Workshops to put in hand four Class A four-cylinder balanced compound locomotives. These were a trial lot, and of a new design quite unlike anything previously in use on New Zealand railways. These engines were built singly, one being specially finished for the New Zealand International Exhibition. A large amount of overtime had to be worked on the Exhibition engine, which, of course, added materially to the cost. These engines being of an altogether new type south of the equator, the first engine had to undergo some modifications and additions before its final completion. The cost of these engines ready for service, including the one specially prepared for the Exhibition, also cost of patterns and templates, amounted to £5,522 each.

In November, 1905, an order was issued on Addington Workshops to build three more Class A compound locomotives of a modified design. These three engines were built singly at a cost of £4,956 each, complete ready for service.

To Messrs. A. and G. Price, Thames, a contract was let in 1906 for twenty Class A four-cylinder balanced compound locomotives similar to the last three then under construction at Addington. It was arranged under the contract for Addington Workshops to manufacture at an agreed-upon rate all wheels, axles, and crank-pins, complete ready for placing under engine; bronze castings; sight feeders complete; and many heavy forgings; Hillside Workshops again making all the laminated springs, lamps, &c. The rate per Class A locomotive at which Messrs. A. and G. Price contracted was £3,998, to which cost of Westinghouse brake, &c., has to be added to complete the engine in readiness for service: the total thus becomes £4,228 each. Messrs. A. and G. Price are working under much more favourable conditions than obtained at Addington, because they are able to carry on the work in sets. If the commission or profit charged against the Addington Class A engines is deducted, their net cost ready for service would be £4,310 each, which is very little more than those built under contract. Messrs. A. and G. Price have already delivered twelve of the twenty contract engines, and, although exact figures cannot be available before completion of the contract, I have their authority for stating that the contract rate per engine is much too low, and that they now consider a fair rate per engine ought to have been £4,600. With the additional cost added for Westinghouse brake, &c., the engines would then cost £4,830 each, complete ready for service, which is fairly close to our Addington cost.

In comparing the cost per ton of various engines, it should be borne in mind that the A compounds each have four cylinders, four valve-chambers, and double sets of connecting-rods and double sets of valve-gear, &c. The bulk of the work executed in Railway Workshops comprises repairs to engines and rolling-stock generally, a class of work not done in private foundries. It is not, therefore, practicable to institute comparisons, excepting in special cases, such as the manufacture of points and crossings, castings, &c.

In cases where the Department has invited tenders for points and crossings, the Addington Workshops were able to manufacture at a much cheaper rate than the tendered prices from outside foundries.

With regard to iron and brass castings, it has been found that the Department can make these at a very much cheaper rate than that for which they can be procured outside.

Steel castings are produced at Addington which for quality and cost compare favourably with those obtained outside.

I put in, for the information of the Commissioners, a tabulated statement showing the relative costs of Class LA iron wagons. It will be seen that those imported from Great Britain were the most costly, similar wagons built by outside contract in New Zealand coming next in order of cheapness, whilst those built in our Railway Workshops were the cheapest. These were the only wagons built within recent years by private foundries in New Zealand.

Coming now to the question of output, and whether it is reasonable in quantity and quality, having regard to all the circumstances: In this connection it should be remembered that precedence is in all cases given to repair-work. New work is not allowed to interfere with the thoroughly efficient upkeep of rolling-stock generally, for it is essential, for the safety and convenience of the public, to maintain existing rolling-stock in the best possible condition. This frequently seriously interferes with the progress of new work, and unquestionably adds to its cost. In the principal Railway Workshops it is necessary to have new locomotive, car, or wagon building in hand in order to keep staff employed for some days immediately following busy holiday seasons, such as at Christmas and New Year, when all existing rolling-stock is required in service, and the shops are empty of repair-work. Taking into consideration the manifest inconvenience inseparable from the carrying-on of both new and repair work under the same roof, and using the same machinery and appliances, I would submit that the output is reasonable in quantity and unquestionably of the best quality.

A study of the returns already furnished for the information of the Commissioners will show that the cost of manufacturing is being gradually reduced on each successive order for new engines of similar types.

Mr. Beattie put in returns dealing with the commission charges in the various Railway Workshops.

The Chairman : Can you give us the references from which this data is extracted ?

Witness : It is partly from correspondence with Chief Mechanical Engineers in other places. In some cases they are from published data.

The Chairman : You will give us the references ?

Witness : I will if I can. I have not them with me.

[Comparison of costs of A locomotives put in; also statement showing charges made in New Zealand Government Railway Workshops as compared with charges made in other Government Railway Workshops.]

Continuing, *Mr. Beattie* said, in the Newport Railway Workshops, Victoria, they consider that if they can lay down ten locomotives at a time they save 25 per cent. in the cost of labour. Whether that 25 per cent. is an exact figure or not, it will be obvious, I think, to the Commissioners as practical men that the more locomotives which can be carried out at one time the cheaper many of the charges will come.

I do not think there is anything else that I can say, except that I should like to express, on behalf of myself and the officers I represent, appreciation of the very courteous and thorough manner in which you have conducted the inquiry, and our entire confidence in the fair-minded manner in which you have approached it. We in our turn have endeavoured to do our best to supply you with all the information which you desire, or which we thought would be of interest to you.

RETURNS.

RETURN I.

[All particulars furnished by Railway Department.]

SALARIES OF OFFICERS IN WORKSHOPS.

Name.					Grade.			Salary per Annum.
<i>Addington.</i>								£
G. E. Richardson	..	..	..	..	Workshop Manager	..	..	400
J. T. Henderson	..	..	..	..	Foreman	..	..	300
D. Handisides	..	..	..	..	Foreman	..	..	255
G. V. D. Butts	..	..	..	..	Foreman	..	..	255
W. H. Cole	..	..	..	..	Foreman	..	..	220
J. S. Clarke	..	..	..	..	Foreman	..	..	220
J. Barbour	..	..	..	..	Foreman	..	..	220
D. J. Round	..	..	..	..	Foreman	..	..	210
J. W. Lowry	..	..	..	..	Clerk	..	..	180
S. T. Callaway	..	..	..	..	Clerk	..	..	190
C. W. Johnston	..	..	..	..	Clerk	..	..	180
A. F. Fitzpatrick	..	..	..	..	Clerk	..	..	135
H. A. Trewern	..	..	..	..	Cadet	..	..	50
<i>Hillside.</i>								
S. P. Evans	..	..	..	..	Workshop Manager	..	..	370
J. Carson	..	..	..	..	Foreman	..	..	290
R. Johnson	..	..	..	..	Foreman	..	..	260
S. Nicholson	..	..	..	..	Foreman	..	..	255
H. F. Holder	..	..	..	..	Foreman	..	..	210
C. H. Virtue	..	..	..	..	Clerk	..	..	180
J. M. White	..	..	..	..	Clerk	..	..	120
F. E. Bowen	..	..	..	..	Clerk	..	..	120
L. A. J. Emery	..	..	..	..	Cadet	..	..	80
D. H. Hastings	..	..	..	..	Casual Clerk	..	..	10s. per day.

STAFF, ADDINGTON.

Foreman.	November 7, 1908.			December 5, 1908.			January 30, 1909.			March 12, 1909.		
	Men.	Boys.	Total.	Men.	Boys.	Total.	Men.	Boys.	Total.	Men.	Boys.	Total.
Henderson ..	94	29	123	93	33	126	82	32	114	82	32	114
Butts ..	188	42	230	180	41	221	160	39	199	124	36	160
Clarke ..	42	8	50	51	9	60	47	9	56	45	8	53
Cole ..	90	11	101	95	11	106	80	11	91	80	11	91
Barbour ..	44	6	50	44	5	49	36	5	41	36	4	40
Handisides ..	56	10	66	54	10	64	56	9	65	54	8	62
Round ..	55	10	65	54	11	65	53	11	64	52	10	62
Total ..	..	..	685	..	..	691	..	..	630	..	..	582

STATEMENT SHOWING THE NUMBER OF TRADESMEN ON THE PERMANENT STAFF AT ADDINGTON,
1ST APRIL, 1909.

Designation.	Leading Hands.			Tradesmen.		Juniors.	Appren- tices.
	Grade 1.	Grade 2.	No Grade.	Grade 1.	Grade 2.		
Fitters	4	2	..	20	17	1	26
Turners .. ..	..	1	..	14	4	..	5
Boilermakers	1	..	..	11	7	..	7
Blacksmiths and springmakers .. ..	..	..	..	18	2	..	7
Carpenters	1	1	..	14	6	..	3
Patternmakers .. ..	..	1	..	..	2	..	..
Painters .. ..	..	..	..	13	5	..	5
Iron-moulders .. ..	..	1	..	8	2	..	1
Brass-moulders .. ..	..	..	..	3	1	..	2
Coppersmiths	1	..	..	1	2	..	..
Tinsmiths .. ..	..	..	..	1	1	..	1
Trimmers .. ..	..	..	1	1	1	..	1
Sailmakers .. ..	..	..	1	1	..	..	1

STATEMENT SHOWING THE NUMBER OF REGULAR CASUAL TRADESMEN AT ADDINGTON, 1ST APRIL, 1909.

Designation.	Tradesmen.		Designation.	Tradesmen.	
	Grade 1.	Grade 2.		Grade 1.	Grade 2.
Fitters	32	2	Iron-moulders	6	..
Turners	11	..	Brass-moulders .. ..	..	..
Boilermakers	7	..	Coppersmiths	1	..
Blacksmiths and spring-makers	7	..	Tinsmiths .. ..	..	1
Carpenters	4	1	Trimmers .. ..	..	..
Patternmakers .. ..	..	..	Sailmakers .. ..	..	7
Painters	2	..	Bricklayers .. ..	..	1

STATEMENT SHOWING THE NUMBER OF TERM CASUAL TRADESMEN AT ADDINGTON, 1ST APRIL, 1909.

Designation.	Tradesmen.	
	Grade 1.	Grade 2.
Fitters	1	1
Turners	10	..
Blacksmiths	3	..
Boilermakers	8	1
Tinsmiths .. ..	..	1
Iron-moulders	5	..
Patternmakers	1	..

STATEMENT SHOWING THE NUMBER OF HANDS OTHER THAN TRADESMEN ON THE PERMANENT STAFF
AT ADDINGTON, 1ST APRIL, 1909.

Designation.	Leading.	Grade 1.	Grade 2.	No Grade.
Woodworking machinists	1	1	3	..
Furnacemen	..	3	..	..
Helpers	..	2	..	..
Ironworking machinists	1	23	12	..
Sewing machinists	..	3	..	..
Strikers	..	35	2	..
Holders-up	..	7	2	..
Fettlers	..	1	..	..
Labourers	2	..	..	12
Skilled labourers	..	..	..	14
Lifters	..	1	4	..
Shop enginemen	..	4	1	..
Crane-drivers	..	1	..	..

STATEMENT SHOWING THE NUMBER OF HANDS OTHER THAN TRADESMEN EMPLOYED AS REGULAR
CASUALS AT ADDINGTON, 1ST APRIL, 1909.

Description.	Grade 1.	Grade 2.	No Grade.
Woodworking machinists	..	..	..
Ironworking machinists	2	2	..
Junior machinists (iron)	..	..	11
Junior sewing machinists	..	..	3
Strikers	5	7	..
Junior strikers	..	..	2
Holders-up	2	4	..
Fettlers	1	1	..
Labourers	..	..	11
Skilled labourers	..	..	3
Junior labourers	..	..	22
Lifters	..	5	..
Junior lifters	..	..	2
Shop enginemen	1	..	..

STATEMENT SHOWING THE NUMBER OF HANDS OTHER THAN TRADESMEN EMPLOYED AS TERM CASUALS
AT ADDINGTON, 1ST APRIL, 1909.

Designation.	Grade 1.	Grade 2.	No Grade.	Juniors.
Ironworking machinists	..	1	..	..
Holders-up	..	8	..	..
Strikers	1	..	..	..
Labourers	20	..
Casual junior labourers	8	..

STATEMENT SHOWING THE NUMBER OF HANDS EMPLOYED AS EMERGENCY CASUALS AT ADDINGTON,
1ST APRIL, 1909.

Twenty-six labourers.

TOTAL WAGES PAID AT ADDINGTON EACH YEAR SINCE THE 1ST APRIL, 1900, AND NUMBER OF MEN EMPLOYED.

Year.	Total Wages per Year.	Number of Men in January of each Year.	Average Monthly Wages per Man in January of each Year.
	£ s. d.		£ s. d.
April 1, 1900, to March 31, 1901 ..	51,630 1 0	458	9 6 0
„ 1901, „ 1902 ..	65,282 8 7	557	9 2 11
„ 1902, „ 1903 ..	63,759 8 2	534	9 7 6
„ 1903, „ 1904 ..	60,512 15 7	477	9 6 7
„ 1904, „ 1905 ..	57,687 4 6	465	9 14 4
„ 1905, „ 1906 ..	59,352 15 1	473	9 10 6
„ 1906, „ 1907 ..	66,960 12 5	518	9 19 10
„ 1907, „ 1908 ..	73,899 11 11	586	9 14 5
„ 1908, to February 27, 1909..	80,872 5 5	696	10 1 1

TOTAL VALUE OF WORK, ADDINGTON.

Year.	Wages.	Material.	Commission.	Total.
	£	£	£	£
March 31, 1905	58,133	38,445	11,960	108,538
„ 1906	59,714	46,957	12,777	119,448
„ 1907	67,876	57,144	15,655	140,675
„ 1908	74,647	61,686	16,114	152,447
January 30, 1909 (11 periods)	75,222	75,475	17,595	168,292

ANNUAL CONSUMPTION OF FUEL AND OIL AND WASTE USED FOR SHOP PURPOSES.

Shop.	Coal.				Coke.		Oils.										Remarks.	
	Kaitangata Lump.	Seddonville.	Kaitangata Peas.	Kaitangata Nuts.	Hard.	Gas.	Valve.	Kerosene.	Machine.	Engine.	Light.	Colza.	Linseed.	Dark.	Pale.	Castor.		Waste.
<i>Hillside.</i>																		
Fitting and machine shop— 1 Porter-Allen engine, 75 i.h.p.	5	34	105	78	..	..	..	..	..	..	125	To October, 1908 ; machinery working 96 hours per week.
2 Babcock and Wilcox boilers Smith and boiler shop— 1 Porter-Allen engine, 50 i.h.p.	620	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Provides steam for shop-engine, blowing-engine, air-compressor, steam-pump for hydraulic plant, 3 steam-hammers, &c.
2 Babcock and Wilcox boilers, 1 locomotive-boiler Smith's fires Wheel-bossing fires Wheel-furnace Hydraulic-press furnace Spring-furnace Plate-furnace	..	1,500	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Car-shop— 1 Porter-Allen engine, 75 i.h.p. 1 Babcock and Wilcox boiler	150	230	48	42	13	2	5	45	5	..	..	..	..	..	32	Tailings, sawdust, &c., from mill burned in this boiler.
Iron-foundry Brass-foundry	Very seldom used.
<i>Oil and Waste used in Shops.</i>																		
Fitting and machine shop Smith and boiler shop Car-shop Iron-foundry	17	9	3	..	5	5	..	..	..	145	
	25	2	..	..	..	..	30	8	..	48	
	12	..	..	..	..	..	20	10	..	60	
	38	..	..	..	..	5	..	5	..	50	

Points and crossings shop—														
1 Davey-Paxman gas-engine, 50 b.h.p.														
Tarpaulin-shop—														
1 Priestman oil-engine, 1½ h.p.														
Foundries—														
Brass	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Iron	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Steel	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	33	..	..	..	..	..	..	..	..	..	..	..	..	..
Oil and Waste used in Shops.														
Fitting and machine shop	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Boiler-shop..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Smith-shop..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Car-shop ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Machinery working 118½ hours per week from February, 1908, to November 7, and 96 hours from November 9 to December 23.

Oil and Waste used in Shops.

ADDITIONS, ETC., ADDINGTON WORKSHOPS.

Year.								Amount. £
1900-1	..	..	..	..	..	..	..	636
1901-2	..	..	..	..	..	..	..	1,584
1902-3	..	..	..	..	..	..	..	Nil
1903-4	..	..	..	..	..	..	..	4,982
1904-5	..	..	..	..	..	..	..	Nil
1905-6	..	..	..	..	..	..	..	Nil
1906-7	..	..	..	..	..	..	..	238
1907-8	..	..	..	..	..	..	..	578
1908-9	..	..	..	..	..	..	..	2,010
Total..	..	..	..	..	..	..	..	£10,028

REPAIRS AND MAINTENANCE, ADDINGTON WORKSHOPS.

Year.								Amount. £
1900-1	..	..	..	..	..	..	..	133
1901-2	..	..	..	..	..	..	..	312
1902-3	..	..	..	..	..	..	..	236
1903-4	..	..	..	..	..	..	..	165
1904-5	..	..	..	..	..	..	..	412
1905-6	..	..	..	..	..	..	..	216
1906-7	..	..	..	..	..	..	..	528
1907-8	..	..	..	..	..	..	..	520
1908-9	..	..	..	..	..	..	..	307
Total ..	..	..	..	..	..	..	..	£2,829

STATEMENT SHOWING AMOUNT ADDED TO COVER SHOP CHARGES IN NEW ZEALAND GOVERNMENT RAILWAY WORKSHOPS AS COMPARED WITH SIMILAR CHARGES IN GOVERNMENT RAILWAY WORKSHOPS IN VICTORIA AND NEW SOUTH WALES.

(Cost of Class A compound locomotive taken as a basis : Labour, £2,531 4s. 4d. ; material, £1,779 0s. 2d. : total, £4,310 4s. 6d.)

New Zealand—		£	s.	d.
Shop charges : 15 per cent. in total wages and material = 15 per cent. on £4,310 4s. 6d.	646	10	8	
Victoria—				
Shop charges : 20 per cent. on direct charges for labour = 20 per cent. on £2,531 4s. 4d.	506	4	11	
New South Wales—				
Shop charges : 32½ per cent. on direct charges for labour (30 per cent. for shop charges and 2½ per cent. for supervision) = 32½ per cent. on £2,531 4s. 4d.	822	12	10	

SUMMARY OF SHOP CHARGES MADE IN RAILWAY WORKSHOPS.

Railway.	Percentage added for Shop and Indirect Charges.	
	To Direct Labour.	To Direct Material.
Midland Railway Company, England	10	Nil.
Great Northern Railway Company, England..	20	..
Canadian Pacific Company	10	..
Grand Trunk Railway system, Canada	Nil	..
New South Wales Railways	32½	..
South Australian Railways	30	..
Queensland Railways	12½ to 17¼	..
New Zealand Railways*	15	15
Victorian Railways†	20	Nil.

* New Zealand Railways also charge 4d. in the pound as Stores commission for handling material.

† Victorian Railways also charge 1 per cent. for depreciation on material.

RETURN II.

[Supplied by Railway Department.]

PROCEDURE FOR BUILDING ROLLING-STOCK IN GOVERNMENT RAILWAY WORKSHOPS.

UPON approval being received from the General Manager to put new rolling-stock in hand the Chief Mechanical Engineer instructs the Locomotive Engineer in charge of the section to put the work in hand. Take, for example, 100 8-ton wooden high-side wagons, Class L, are approved for South Island main line, the Chief Mechanical Engineer would send a memorandum as per "Pro Forma" attached, marked No. 1. On receipt of this letter by Locomotive Engineer, Addington, he would minute it on to Workshops Manager (see No. 2), or would send him a letter with the same information. The Workshops Manager would then make out orders on Loco/43 forms and send them to the foremen concerned.

The foremen, on receipt of Loco/43 order, would notify their staff, then make out job tickets (Loco/40) for the material they would require for the job. These job tickets are then sent to the Workshops Manager's office, where they are checked, and particulars entered in the Material Ledger, care being taken that nothing was omitted and no more material than required charged against the order. The Loco/40's are then sent to the Railway Storekeeper, who delivers the material ordered, and gets each job ticket initialled as supplied.

At the close of week in which order is received the Workshops Manager sends a list of orders opened and completed, on Loco/44 form, to the Chief Mechanical Engineer's office. Here the order lists are checked and posted into Job Ledgers.

The time of each man working on these orders for 100 wagons is entered daily by him in his Loco/2B time-book. The foreman checks details on each time-sheet, and initials the time each day. Each fortnight the total time shown on each Loco/2B is taken out under the various rates on Loco/2c. At the end of each four-weekly period the time shown on Loco/2B is summarised on Loco/6, and balanced with Loco/2c, totalled, and an average rate per hour arrived at. The number of hours, therefore, charged against the orders for 100 wagons would be worked out and entered on Loco/6 return. This return, when balanced, is sent to the Chief Mechanical Engineer's office, and the amount of wages opposite each order is transcribed into the Job Ledger.

With regard to the material, the Storekeeper enters on S/31 form the material issued as per job tickets, and at end of period he sends the S/31 forms to Workshops Manager's office to be checked and returned. They are then sent by Storekeeper to Stores Manager, who has them priced out, and, with the S/5 summary, transmits them to the Chief Mechanical Engineer's office. Here the details are taken out on Loco/42 form. On this form is also entered from Loco/39 form particulars of any castings made and used on the job, also any forgings. The charges for forgings and castings are compiled by the Workshops Manager on Loco/39 form. This form is sent to Chief Mechanical Engineer's office, and there priced out; the amounts are transcribed on to the Loco/42, opposite the order concerned. The total charges for material on Loco/42 should agree with the total of the S/5 plus the Loco/39. These items are then posted in the Job Ledger, Loco/33, under head of "Material," the wages being taken from the Loco/6. Commission is added and the items totalled, the amount being the debit for the four-weekly period against that order-number.

These details—wages, material, commission, total, total to date—are then transcribed on Loco/35 form, copies of which are sent to each workshop concerned, so that it can be ascertained by Workshops Manager each period how the charges on order stand.

The whole of the Loco/35 returns are summarised and balanced on the Loco/37 form, and sent to Railway Accountant.

Whilst an order is in hand, a report showing position of work, on Loco/95 form, is rendered each period by Workshops Manager to the Locomotive Engineer, who, after signing them, transmits them to the Chief Mechanical Engineer's office.

When an order is completed the foreman signs and forwards to Workshops Manager the triplicate part of Loco/43; the Workshops Manager at close of week renders to the Chief Mechanical Engineer a Loco/44 showing the order completed.

The copies of Loco/35 returns sent to Workshops Manager would show him the total cost of order.

No. 1.

NEW ZEALAND GOVERNMENT RAILWAYS.

No. 178/674.
1908/496.

Chief Mechanical Engineer's Office, Wellington, 12th March, 1908.

PRO FORMA.

Loco. Engineer, Railways, Addington.

New Rolling-stock.

PLEASE put in hand at Hillside 100 8-ton wooden high-side wagons, Class L, to Blue-print 4334.

The material for these wagons is in hand at Addington and Hillside Stores.

Open special order-number for this job, debit cost to A.O.L., render usual Loco/95 reports, and show transaction on Loco/65 return.

The numbers for these wagons will be L 9199 to 9298, both inclusive.

(Signed) A. L. BEATTIE,
Chief Mechanical Engineer.

NEW ZEALAND GOVERNMENT RAILWAYS.

No. 178/674.
1908/496.

Chief Mechanical Engineer's Office, Wellington, 12th March, 1908.

PRO FORMA.

Loco. Engineer, Railways, Addington.

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Open special order-number for this job, debit cost to A.O.L., render usual Loco/95 reports, and show transaction on Loco/65 return.

The numbers for these wagons will be L 9199 to 9298, both inclusive.

(Signed) A. L. BEATTIE,
Chief Mechanical Engineer.

Workshop Manager, Hillside.

Please put this work in hand as instructed above.

(Signed)

H. H. JACKSON,
Loco. Engineer.

13/3/1908.

RETURN III.

RETURN, RECEIVED FROM THE CHIEF MECHANICAL ENGINEER, OF COMPARATIVE COST OF LOCOMOTIVES ERECTED AND PLACED ON LINE, with Additional Columns showing Cost of Locomotives Manufactured in Government Workshops, with 33½ per Cent. Commission Charged on Labour and Material.

Date.	Type.	Number built or imported.	Weight.	Wages.	Material.	15 per Cent. Commission.	Commission at 15 per Cent. Total.	Cost per Ton (Commission at 15 per Cent. on Government Engines).	Commission at 33½ per Cent.	Total Cost per Engine (Commission at 33½ per Cent.).	Cost per Ton (Commission at 33½ per Cent.).	Remarks.
			Tons cwt. qrs.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Feb., 1897 ..	U, Addington	4	47 6 1	2,339 15 3	1,720 12 8	608 0 2	4,668 8 1	98 13 3	1,234 8 8	4,937 14 9	104 7 0	
Nov., 1899 ..	U, Addington	4	47 6 1	2,088 9 11	1,646 16 6	560 5 11	4,295 12 4	90 16 0				
Nov., 1903 ..	U, Addington	1	47 6 1	2,019 6 11	1,294 17 2	497 12 4	3,811 16 5	80 11 5				
Nov., 1899 ..	W A, Hillside	2	31 14 0	1,659 3 5	1,128 13 9	418 3 6	3,206 0 8	101 2 8				
May, 1903 ..	W A, Hillside	3	31 14 0	1,531 7 4	1,049 3 9	377 17 5	2,958 8 6	93 6 3	929 5 8	3,717 2 10	117 5 0	
May, 1903 ..	B, Addington	6	49 19 0	2,450 13 5	1,718 9 6	625 17 6	4,795 0 5	96 0 0	860 3 8	3,440 14 9	108 10 0	
Sept., 1905 ..	W F, Addington	10	33 16 0	1,543 1 0	1,081 18 0	393 14 10	3,018 13 10	89 6 5	1,389 14 4	5,558 17 3	111 6 0	
Jan., 1906 ..	W F, Hillside	6	33 15 0	1,323 18 10	961 16 9	342 17 5	2,628 13 0	77 15 7	874 19 8	3,499 18 8	103 10 10	Includes cost of patterns.
May, 1907 ..	A compound, Adding-ton (first order)	4	55 4 2	3,012 19 2	1,789 1 8	720 6 2	5,522 7 0	99 19 9	761 18 6	3,047 14 1	90 3 4	Includes cost of patterns, Exhibition engine, alterations and improvements.
March, 1908	A compound, Adding-ton (second order)	3	57 5 2	2,531 4 4	1,779 0 2	646 10 8	4,956 15 2	86 10 11	1,436 14 10	5,746 19 4	100 6 0	
Feb., 1900 ..	B, Sharp-Stewart	4	49 19 0	..	..	..	3,378 0 0	67 12 7	..	..	..
Feb., 1900 ..	U A, Sharp-Stewart	6	47 6 1	..	..	..	3,199 13 4	67 12 7	..	..	..
Sept., 1901 ..	U B, Baldwin	10	44 7 2	..	..	..	2,655 0 0	59 16 7	..	..	..
Nov., 1901 ..	U C, Sharp-Stewart	10	47 6 1	..	..	..	3,396 0 0	71 15 7	..	..	..
Feb., 1902 ..	U B, Brooks	1	47 10 1	..	..	..	2,884 17 9	60 14 5	..	..	..
March, 1902	U B, Richmond	1	43 19 3	..	..	..	3,096 19 5	70 8 1	..	..	..
April, 1902 ..	Q, Baldwin	13	48 3 3	..	..	..	2,791 0 0	57 18 5	..	..	..
N.Z., 1905 ..	W F, A. and G. Price	10	33 16 0	..	..	..	2,940 0 0	86 19 8	..	..	..	Contract, £2,800; W.H.B., £140.
N.Z., 1906-09	A compound, A. and G. Price	20	57 5 2	..	..	..	4,228 0 0	73 16 4	..	..	..	Contract, £3,998; W.H.B., £210; completing painting, £20.

NOTES (by Railway Department).—For all locomotives built by Messrs. A. and G. Price, Thames, the cost of Railway Department's inspection at builders' works during construction has not been included in above totals. For each Class A locomotive cost of inspection averages £50, and for each Class W F locomotive £40. For engines built outside New Zealand the details of labour and material are not available, but the totals include freight and erecting charges. The B and U A engines built by Sharp, Stewart, and Co. were contracted for at a lump sum; the proportionate costs have been estimated on the basis of relative weight.

Supplied by Railway Department.

Supplied by Board.

By Railway Department.

RETURN IV.

STATEMENT SHOWING OUTPUT OF IRON, BRASS, AND STEEL FOUNDRIES AT ADDINGTON FOR YEAR 1908—VIZ., FROM 5TH JANUARY, 1908, TO 2ND JANUARY, 1909.
[As supplied by Railway Department.]

	P.E. 1/2/8.	P.E. 29/2/8.	P.E. 31/3/8.	P.E. 25/4/8.	P.E. 23/5/8.	P.E. 20/6/8.	P.E. 18/7/8.	P.E. 15/8/8.	P.E. 12/9/8.	P.E. 10/10/8.	P.E. 7/11/8.	P.E. 5/12/8.	P.E. 2/1/9.	Total.
Iron-foundry—														
Staff—														
Moulders at 11/6	10	10	10	10	10	10	11	10	10	1	1	1	1	Average num- ber of staff per period, 25.
" " 10/6	6	6	7	7	7	8	8	9	9	9	9	10	10	Average issues per period, 50½ tons.
" " 9/6	1	1	1	1	1	1	1	1	1	1	1	1	1	
" " 9/6	1	1	1	1	1	1	1	1	1	1	1	1	1	
Apprentices at 5/1/6	1	1	1	1	1	1	1	1	1	1	1	1	1	
" " 1/6	1	1	1	1	1	1	1	1	1	1	1	1	1	
Labourers and fettlers at 10/8	1	1	1	1	1	1	1	1	1	1	1	1	1	
Ditto 9/8	2	2	1	2	2	2	2	2	2	2	2	2	2	
" " 8/6														
Total staff ..	22	22	22	23	23	24	25	26	28	28	28	27	28	
Issues per period—														
Castings, 7 lb. and under	T. c. q. lb. 1 7 1 25	T. c. q. lb. 0 13 2 4	T. c. q. lb. 3 0 1 13	T. c. q. lb. 1 5 3 0	T. c. q. lb. 1 19 3 22	T. c. q. lb. 1 15 1 24	T. c. q. lb. 2 17 3 18	T. c. q. lb. 3 10 2 4	T. c. q. lb. 2 9 1 1	T. c. q. lb. 3 16 0 19	T. c. q. lb. 2 0 2 4	T. c. q. lb. 0 16 3 7	T. c. q. lb. 1 1 1 3	T. c. q. lb. 26 15 0 4
" " over 7 lb.	58 11 1 7	56 1 1 21	73 4 2 27	40 10 3 2	35 10 1 18	37 8 0 13	52 6 2 19	43 17 2 1	44 16 0 0	41 13 3 6	58 4 0 25	42 2 2 22	45 19 2 21	630 7 1 14
Total ..	59 18 3 4	56 14 3 25	76 5 0 12	41 16 2 2	37 10 1 12	39 3 2 9	55 4 2 9	47 8 0 5	47 5 1 1	45 9 3 25	60 4 3 1	42 19 2 1	47 0 3 24	657 2 1 18
Brass-foundry—														
Staff—														
Moulders at 10/6	3	3	3	3	3	3	3	3	3	3	3	3	3	Average num- ber of staff per period, 7.
" " 9/6	1	1	1	1	1	1	1	1	1	1	1	1	1	Average issues per period, 4½ tons.
Apprentices at 2/1/6	1	1	1	1	1	1	1	1	1	1	1	1	1	
" " 1/6	1	1	1	1	1	1	1	1	1	1	1	1	1	
Labourers at 5/6	1	1	1	1	1	1	1	1	1	1	1	1	1	
Total staff ..	7	7	7	7	7	7	7	7	7	7	7	7	7	
Issues per period ..	T. c. q. lb. 4 9 1 15	T. c. q. lb. 3 5 1 0	T. c. q. lb. 3 7 2 15	T. c. q. lb. 3 14 0 26	T. c. q. lb. 3 8 3 10	T. c. q. lb. 6 9 0 14	T. c. q. lb. 4 15 3 12	T. c. q. lb. 5 14 0 5	T. c. q. lb. 3 16 2 18	T. c. q. lb. 5 0 1 8	T. c. q. lb. 5 5 1 3	T. c. q. lb. 4 18 0 10	T. c. q. lb. 4 14 3 8	T. c. q. lb. 58 19 2 4

Steel-foundry— Staff—		Average num- ber of staff per period, 11. Average issues per period, 7½ tons.											
Moulders at 11/6	1	1	1	1	1	1	1	1	1	1	1	1	1
" " 10/6	3	3	3	3	3	3	3	3	3	3	3	3	2
" " 10/	2	2	2	2	2	2	2	2	2	2	2	2	5
Labourers at 9/	1	1	1	1	1	1	1	1	1	1	1	1	1
" " 8/6	1	1	1	1	1	1	1	1	1	1	1	1	1
" " 8/3½	..	..	..	..	..	..	..	..	..	..	..	..	..
" " 8/	1	1	1	1	1	1	1	1	1	1	1	1	1
" " 6/	..	..	..	..	..	..	..	..	..	..	..	..	..
Furnacemen at 11/	1	1	1	1	1	1	1	1	1	1	1	1	1
Total staff ..	10	10	11	11	11	11	11	11	11	11	11	13	13
Issues per period %.	T. c. q. lb. 8 13 2 8	T. c. q. lb. 6 4 1 3	T. c. q. lb. 8 6 1 20	T. c. q. lb. 6 18 1 25	T. c. q. lb. 7 11 2 13	T. c. q. lb. 8 15 3 18	T. c. q. lb. 4 9 3 0	T. c. q. lb. 7 11 0 20	T. c. q. lb. 6 6 1 5	T. c. q. lb. 9 1 3 20	T. c. q. lb. 5 9 1 0	T. c. q. lb. 10 15 1 9	T. c. q. lb. 96 8 0 10

RETURN V.

POINTS AND CROSSINGS.

TENDERS RECEIVED BY PUBLIC WORKS DEPARTMENT FOR 133 SETS OF POINTS AND CROSSINGS, BEING 20 SETS 70 LB., 103 SETS 56 LB., AND 10 SETS 40 LB. JULY, 1906.

[Supplied by Railway Department.]

						£	s.	d.
New Zealand Railways	..	..	..	..	..	1,436	10	0
A. and T. Burt, Dunedin	..	..	..	..	..	1,500	10	0
Dispatch Foundry, Greymouth	..	..	..	..	..	1,715	0	0
Judd, Thames	..	..	..	..	..	1,779	15	0
Fraser, Auckland	..	..	..	..	..	2,448	15	0

The tender of New Zealand Railways was accepted.

[New Zealand Railways.]

CONTRACT FOR THE MANUFACTURE AND SUPPLY OF POINTS AND CROSSINGS.

SPECIFICATION.

1. THE work included under this contract is the manufacture and supply of one hundred sets of points and crossings, together with all necessary fittings, castings, fastenings, switch-boxes, and other equipments, and executing all work required to be done in the manufacture of the same, as shown upon the drawings attached hereto, and as set forth in this specification.

2. Fifty of the sets shall be made to a crossing-angle of 1 in 9, and fifty sets shall be made to a crossing-angle of 1 in $7\frac{1}{2}$. The splice in the frog shall be made half for right hand and half for left hand in each angle. The measurement of the angle of crossing shall be for a right-angled triangle.

3. The points and crossings, including switches, stock-rails, wings, and frogs, shall be made from rails weighing 70 lb. to the lineal yard.

The Railway Department will supply the Contractor with the number of rails required for the work. These rails will be delivered at the nearest railway-station to the Contractor's works within two weeks of the Contractor applying to the Railway Storekeeper. Spare lengths made by cutting shall be returned to the Railway Department. Any further quantity of rails required by the Contractor shall be paid for by him.

Should the Railway Department fail to deliver the rails within the time specified, the Contractor shall have no claim for compensation of any kind, but he will be allowed a corresponding extension of time for the completion of his contract.

4. The ends of the frog-rails, wing-rails, and switches shall be properly drilled where requisite to take the bolts of the fish-plates, a sample of which will be supplied to the Contractor upon application.

5. The switch-rails are to be accurately bent and planed. The rods, bolts, keys, pins, and other wrought-iron work are to be cleanly forged, fitted, and finished. The guard-rails shall be bent to the forms shown, and holes drilled in them for the bolts through the distance-blocks. The contract does not include the cutting or boring of the rails to which the guard-rails are shown to be bolted on the drawings.

Rails requiring to be cut shall be cut by saw. No cut shall be made by "setts."

6. All bolts shall be cut with a full clean thread, and the nuts similarly tapped to a good fit.

The cotter-bolts shall have clean true slots, with the cotters accurately fitted to the same. All bolt-holes in rails shall be drilled.

7. All the slide-chairs shall be fitted smooth on the surface in contact with the foot of the rails, and where required the chairs shall be thickened for a portion of their length to form a raised fillet of the respective thicknesses shown on the drawings for each set.

8. All the switches shall have levers of the pattern lettered "A" on the drawings.

9. Blocks for guard-rails, frogs, and centres of wings, switch-boxes, weights for switch-handles, and sockets for switch-handles and connecting-rods to be of cast iron.

Switch-handles, bell-cranks, distance-rods, connecting-rods, and chairs, with their studs and collars, to be of wrought iron.

Rail-braces are to be of pressed steel.

10. Each set when finished shall be accurately fitted up at the works of the Contractor for the inspection of the Engineer, to whom notice shall be given when the set is ready for inspection. The several parts of each set are to be properly marked by letters or otherwise, and the whole sets are to be numbered consecutively.

11. The whole of the bolts and all other forgings shall be dipped while hot into boiled linseed-oil. After the inspection has taken place all the materials shall receive one coat of good anti-corrosive paint.

12. Each switch is to be delivered bound with stout wire to its stock-rail. Small ironwork and fittings shall be packed in strong wooden cases of convenient size for facility of transport. No package shall contain material belonging to more than one set of points and crossings, and each package must be distinctly marked outside with the number of the set it belongs to. Each crossing to be delivered fixed together complete.

13. A pattern set of points and crossings will be supplied to the Contractor, and this shall be returned to the Railway Department in good order on completion of the contract. The points and crossings supplied by the Contractor shall be in every respect equal to the pattern supplied.

14. All wrought iron used shall be of BB Crown iron, or other approved brand of equal quality, free from all defects, and all welds shall be perfectly sound, and free from burns, scale, or other defects.

15. All steel used shall be the best double-shear, of uniform quality, and shall show perfectly sound welds.

16. All castings shall be of the best cold-blast iron, perfectly sound, smooth, and free from all flaws and defects.

17. All steelwork required to be heated during the process of manufacture shall be carefully annealed after being worked to required shape. The points of frogs shall be hardened in the manner to be directed by the District Railway Engineer.

18. Progress-payments shall only be made on completed sets of points and crossings which have been passed by the Inspecting Officer.

19. The Contractor will be held responsible for all material delivered to him by the Railway Department, and also for any damage the goods may sustain in transport through defective packing.

20. The whole of the materials shall be delivered within six months from date of acceptance of tender at a railway-station or f.o.b. at Nelson, Greymouth, or Thames, and the Contractor shall state in his tender at which station he will deliver.

21. This specification shall be read in conjunction with the special and general conditions attached.

J. BURNETT,
Chief Engineer.

Wellington, 24th March, 1908.

These are the Special Conditions referred to in the annexed Bond signed by us.

Witness :

(E.)

New Zealand Railways.

CONDITIONS OF CONTRACT FOR SPECIAL CONDITIONS.

Clause 2 of General Conditions.

1. THE cheque to be deposited with the tender shall be drawn in favour of the Receiver-General's Deposit Account (and not to bearer or order) at the _____, and shall be for _____ pounds sterling.

Clause 3 of General Conditions.

2. The penal sum for which a bond shall be executed shall be _____ pounds sterling.

Clause 21 of General Conditions.

3. The date for the completion of the works shall be _____ months from the date of acceptance of the tender—that is to say, the _____ day of _____, one thousand nine hundred and _____.

4. The sum to be deducted or set off under clause _____ of the General Conditions shall be _____ pounds sterling a week.

Clause 24 of General Conditions.

5. The "period of maintenance" shall be _____ months from and after the date when the Engineer in Charge shall have certified that all the works to be executed under the contract have been fully completed to his satisfaction.

Clause 29 of General Conditions.

6. The rates of payment under clause 29 of the General Conditions shall be per cent. of the value of the work actually done, and per cent. of the value of such materials, plant, and machinery on the ground as the Resident Engineer may approve as fit and necessary for the work.

NOTE.—The “Specifications of Works to be executed” must here follow, and the person intrusted with the preparation of the contract must be careful that it is here inserted and bound up with the other documents.

STATEMENT OF CONTRACTS FOR POINTS AND CROSSINGS LET BY PUBLIC WORKS DEPARTMENT DURING THE FIVE YEARS ENDED 31ST MARCH, 1909; showing Successful and Unsuccessful Tenderers' prices, the Weight of Rails used, &c.

[Supplied by Public Works Department.]

Name of Contractor.	Address.	Weight of Rail used.	—	Price per Set.	Total Amount.	—
May, 1905. 100 sets.		lb.		£ s. d.	£ s. d.	
Dispatch Foundry Company (Limited)	Greymouth	70	..	13 0 0	1,160 0 0	Accepted.
		56	..	11 0 0		
Burt, A. and T. (Limited) ..	Dunedin	70	..	14 5 0	1,232 10 0	
		56	..	11 10 0		
Cooper and Duncan (Limited) ..	Christchurch	70	..	18 0 0	740 0 0*	
		56	..	14 0 0		
Andersons (Limited) ..	"	70	..	19 0 0	840 10 0*	Declined.
		56	..	15 7 0		
		70	1 in 9	20 0 0		
Duncan, P. and D. (Limited) ..	"	70	1 in 7½	18 10 0	1,590 0 0	
		56	1 in 9	15 10 0		
		56	1 in 7½	13 10 0		
New Zealand Railways ..	"	70	..	16 0 0	1,328 15 0	
		56	..	12 2 6		
June, 1906. 133 sets.						
New Zealand Railways	70	..	12 10 0	1,436 10 0	Accepted.
		56	..	..
		40	..	10 10 0		
Burt, A. and T. (Limited) ..	Dunedin	70	..	13 0 0	1,500 10 0	
		56	..	11 0 0		
		40	..	10 15 0		
		70	..	15 0 0		Declined.
Dispatch Foundry Company (Limited)	Greymouth	56	1 in 9	13 0 0	1,715 0 0	
		56	1 in 7½	12 10 0		
		40	..	11 0 0		
Judd, C. ..	Thames	70	1,779 15 0	
		56	..	..
		40		
Fraser and Son, G. ..	Auckland	70	..	..	2,448 15 0
		56		
		40	..	..

* 50 sets only.

From June, 1907, to February, 1909, orders have been given to New Zealand Railways Department for 55 lb. and 70 lb. sets, from £10 10s. to £11 10s. per set.

G. J. CLAPHAM, Accountant.

Public Works Department, Wellington, 1st April, 1909.

P.W.D. 21920.

[Public Works Department.]

CONTRACT FOR THE MANUFACTURE AND SUPPLY OF POINTS AND CROSSINGS.

SPECIFICATION.

1. The work included under this contract is the manufacture and supply of twenty sets of points and crossings for 70 lb. rails, one hundred and three sets for 56 lb. rails, and ten sets for 40 lb. rails, together with all necessary fittings, castings, fastenings, switch-boxes, and other equipments, and executing all work required to be done in the manufacture of the same, as shown upon the drawings attached hereto, and as set forth in this specification.

2. All the sets of the 70 lb. rails shall be made to a crossing-angle of 1 in 9; thirty-five of the sets of the 56 lb. rails shall be made to a crossing-angle of 1 in 9, and the remaining sixty-eight sets to an angle of 1 in $7\frac{1}{2}$; and the ten sets of the 40 lb. rails to an angle of 1 in $7\frac{1}{2}$.

3. The Government will supply the Contractor with the proper number of rails weighing about 70 lb., 56 lb., and 40 lb. respectively to the lineal yard. The rails for the switches, stock-rails, wings and frogs, and guard-rails shall be of steel. They will be delivered to the Contractor at the railway-station at one of the following places, namely: Auckland, Wellington, Christchurch, Timaru, Dunedin, Nelson, Invercargill, Greymouth, or Thames, according as the Contractor may request in writing, and within one month of the acceptance of tender. Should the Government fail to thus deliver the rails within the specified time the Contractor shall have no claim for compensation of any kind, but he will be allowed a corresponding extension of time for the completion of his contract.

4. All wrought-iron used shall be of BB Crown iron, or other approved brand of equal quality, free from all defects, and all welds shall be perfectly sound, and free from burns, scale, or other defects.

5. Steel shall be the best double-shear, of uniform quality, and shall show perfectly sound welds.

6. All castings shall be of the best cold-blast iron, perfectly sound, smooth, and free from all flaws and defects.

7. All steelwork required to be heated during the process of manufacture shall be carefully annealed after being worked to required shape.

8. The ends of the frog-rails, wing-rails, and switches shall be properly drilled where requisite to take the bolts of the fish-plates, a sample of which will be supplied to the Contractor upon application.

9. The switch-rails are to be accurately bent and planed. The rods, bolts, keys, pins, and other wrought-iron work are to be cleanly forged, fitted, and finished. The guard-rails shall be bent to the form shown, and holes drilled in them for the bolts through the distance-blocks. The contract does not include the cutting or boring of the rails to which the guard-rails are shown to be bolted on the drawings.

10. All bolts shall be cut with a full, clean thread, and the nuts similarly tapped a good fit. The cotter-bolts shall have clean true slots, with the cotters accurately fitted to the same. All bolt-holes in rails shall be drilled.

11. All the slide-chairs shall be fitted smooth on the surface in contact with the foot of the rails, and where required the chairs for the 70 lb. rails shall be thickened for a portion of their length to form a raised fillet of the respective thicknesses shown on the drawings for each set.

12. All the switches for the 1-in-9 crossings shall have levers of the pattern lettered "A" on the drawings; all other levers shall be of the pattern lettered "B."

13. Blocks for guard-rails, frogs, and centres of wings, switch-boxes, and weights for switch-handles, and sockets for switch-handles and connecting-rods, to be of cast iron.

Switch-handles, bell-crank, distance-rods, connecting-rods, chairs with their studs and collars and braces, to be of wrought iron.

14. Each set when finished shall be accurately fitted up at the works of the Contractor for the inspection of the Engineer, to whom notice shall be given when the set is ready for inspection. The several parts of each set are to be properly marked by letters or otherwise, and the whole sets are to be numbered consecutively.

15. The whole of the bolts and all other forgings shall be dipped while hot into boiled linseed-oil. After the inspection has taken place all the materials shall receive one coat of good anti-corrosive paint.

16. Each switch is to be delivered bound with stout wire to its stock-rail. Small ironwork and fittings shall be packed in strong wooden cases of convenient size for facility of transport. No package shall contain material belonging to more than one set of points and crossings, and each package must be distinctly marked outside with the number of the set it belongs to. Each crossing to be delivered fixed together complete.

17. The Contractor will be held responsible for all Government material delivered to him, and also for any damage the goods may sustain in transport through defective packing.

18. The whole shall be delivered at the railway-station at Auckland, Onehunga, Wellington, Christchurch, Timaru, Invercargill, or Dunedin, or f.o.b. at Nelson, Greymouth, or Thames, and the Contractor shall state in his tender at which station he will deliver.

19. At each of these stations Contractors may inspect a sample pattern of points and crossings for the 56 lb. rails only.

It is hereby stipulated that the several sets of points and crossings for the 70 lb. and for the 56 lb. rails shall be delivered as specified on next sheet (No. 3) hereof.

P. S. HAY,
Engineer-in-Chief.

Public Works Office,
Wellington, May, 1906.

LIST OF DRAWINGS.

- Drawing No. 1.—Standard drawing points and crossings for 70 lb. rails—3 sheets.
Drawing No. 2.—Standard drawing points and crossings for 56 lb. rails—3 sheets.
Drawing No. 3.—Standard drawing points and crossings for 53 lb. rails—1 sheet ; to which design,
but modified to suit the section of the 40 lb. rail, the ten sets of 40 lb. points and crossings shall be made.

DATES FOR COMPLETION AND DELIVERY, AND ABSTRACT FROM CONDITIONS OF CONTRACT.

Date for completion of the 70 lb. permanent-way sets : Two months after delivery of rails—that is to say, the day of , 190 .

Lot No. 1—1-in-9 crossing : Ten sets in one month.
Lot No. 2— „ Ten sets in two months.

Date for completion of the 56 lb. permanent-way sets : Seven months after delivery of rails—that is to say, the day of , 190 .

Lot No. 1—1-in-9 crossing : Ten sets in one month.
Lot No. 2— „ Twelve sets in two months.
Lot No. 3— „ Thirteen sets in three months.
Lot No. 4—1-in-7½ crossing : Ten sets in four months.
Lot No. 5— „ Ten sets in five months.
Lot No. 6— „ Twelve sets in six months.
Lot No. 7— „ Twelve sets in seven months.
Lot No. 8— „ Twelve sets in eight months.
Lot No. 9— „ Twelve sets in nine months.

Penalty : £5 per week for each lot undelivered after date as fixed above for its delivery.
Deposit : £60.
Bond : £160.
Rates of progress-payments : 90 per cent. of value of work delivered as specified.

TENDERS RECEIVED BY NEW ZEALAND RAILWAYS DEPARTMENT FOR 100 SETS OF 70 LB. POINTS AND CROSSINGS, BEING 50 SETS 1 IN 7½, AND 50 SETS 1 IN 9 ; RAILWAY DEPARTMENT TO SUPPLY RAILS. MARCH, 1908.

[Supplied by Railway Department.]					
					£
Messrs. J. J. Niven and Co., Napier .. .. .	..	..	..	..	5,800
Cooper and Duncan, Christchurch .. .. .	..	..	..	..	3,125
Railways Department .. .. .	..	..	..	..	1,500
The tender of Railways Department was accepted.					

PARTICULARS OF COST OF POINTS AND CROSSINGS MANUFACTURED AT ADDINGTON WORKSHOPS.
[Supplied by Railway Department.]

Description.	Cost per Set.			
	Wages.	Material.	Commission, 15 per Cent.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
70 lb., 1 in 9	6 12 5	17 14 7	3 13 0	28 0 0
„ 1 in 7½	6 1 9	16 1 9	3 6 6	25 10 0
56 lb., 1 in 9	6 12 5	15 11 1	3 6 6	25 10 0
„ 1 in 7½	6 4 2	15 1 11	3 3 11	24 10 0
53 lb., 1 in 9	6 8 7	10 14 5	2 11 6	19 14 6
„ 1 in 7½	6 0 1	10 4 11	2 8 9	18 13 9

STATEMENT SHOWING OUTPUT OF POINTS AND CROSSINGS, ETC., AT ADDINGTON FOR 1908—VIZ., FROM
5TH JANUARY, 1908, TO 2ND JANUARY, 1909.
[Supplied by Railway Department.]

	Period ending													Total.
	1/2/8.	29/2/8.	31/3/8.	25/4/8.	23/5/8.	20/6/8.	18/7/8.	15/8/8.	12/9/8.	10/10/8.	7/11/8.	5/12/8.	2/1/9.	
Staff—														
Fitters at 11/6 ..	1	1	1	1	1	1	1	1	1	1	1	1	1	
„ 11/- ..	1	1	1	1	1	1	1	1	1	4	1	1	1	
„ 10/6 ..	3	5	4	4	5	5	5	5	6	5	5	4	3	
„ 10/- ..	1	1	1	2	1	2	2	3	4	1	2	2	1	
„ 9/6 ..	4	4	3	2	1	2	2	2	2	3	4	2	2	
Blacksmiths at 10/6 ..	2	1	3	2	1	3	6	6	4	4	5	3	2	
„ 10/- ..	1	1	1	2	1	1	2	1	1	1	1	1	1	
Boilermakers at 10/- ..	1	1	1	1	1	1	1	1	1	1	1	1	1	
„ 9/6 ..	1	1	1	1	1	1	1	2	1	2	1	1	1	
Strikers, holders - up, and labourers at 9/-	4	3	6	3	4	5	6	4	5	5	7	4	3	
Ditto at 8/6 ..	2	1	2	4	1	1	2	4	2	3	3	2	1	
„ 8/- ..	8	10	10	2	13	9	4	15	13	10	10	6	6	
„ 5/- and 4/- ..	1	2	1	1	3	2	4	4	3	5	4	3	3	
„ 3/6 ..	1	1	1	2	2	1	1	1	1	1	1	1	1	
Machinists at 11/- ..	1	1	1	1	1	1	2	1	1	1	1	1	1	
„ 10/- ..	1	1	1	1	1	1	2	1	1	1	1	1	1	
„ 9/6 ..	3	3	4	1	4	4	4	5	5	6	5	4	3	
„ 9/- ..	5	6	1	5	5	7	5	6	7	5	4	3	3	
„ 8/6 ..	2	3	3	2	3	1	10	2	2	10	1	1	1	
„ 8/- ..	1	1	1	1	1	1	1	1	1	1	1	1	1	
„ 7/- ..	1	1	1	1	1	1	1	1	1	1	1	1	1	
„ 6/- ..	1	1	1	1	1	1	1	1	1	1	1	1	1	
„ 5/6 ..	1	1	1	1	1	1	1	1	1	1	1	1	1	
„ 5/- ..	1	1	1	1	2	3	3	1	2	1	1	1	1	
„ 4/6 ..	1	1	1	1	1	1	1	1	1	1	1	1	1	
Apprentices at 2/6 ..	1	1	1	1	1	1	1	1	1	1	1	1	1	
„ 2/- ..	1	1	1	1	1	1	1	1	1	1	1	1	1	
„ 1/6 ..	1	1	1	1	1	1	1	1	1	1	1	1	1	
„ 1/- ..	4	3	2	1	2	2	1	1	1	1	1	1	1	
Carpenter at 10/6 ..	1	1	1	1	1	1	1	1	1	1	1	1	1	
Totals ..	48	52	54	41	59	56	67	70	64	74	59	41	35	
Issues—														
Points and crossings, 70 lb...	14	34	48	..	16	43	57	60	60	..	23	67	33	455
„ 56 lb...	1	1	..	..	..	..	..	..	..	..	..	..	..	1
„ 55 lb...	6	..	..	40	20	..	..	..	..	40	40	..	..	146
„ 53 lb...	18	32	17	..	17	1	..	..	..	..	..	..	..	85
Double slips, 70 lb. ..	2	..	..	..	..	..	1	1	..	1	..	..	..	5
„ 56 lb. ..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Three throws, 70 lb. ..	..	..	..	..	..	..	..	..	..	..	..	1	2	3
„ 53 lb. ..	..	1	..	..	..	1	..	..	1	..	..	..	..	3
Crossings, 70 lb. ..	..	..	..	..	..	..	..	..	1	..	2	..	..	3
„ 56 lb. ..	2	..	..	..	..	..	..	..	..	..	..	..	..	2
„ 53 lb. ..	..	..	..	..	..	9	..	..	..	..	..	12	..	21
Single slips, 70 lb. ..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
„ 53 lb. ..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Scissors, 70 lb. ..	..	..	1	..	..	..	..	3	..	2	1	2	..	9
„ 53 lb. ..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Diamond crossings, 70 lb. ..	..	1	..	2	1	1	..	3	2	3	3	1	2	19
„ 53 lb. ..	1	1	1	..	..	4	2	..	..	..	..	..	..	9
Point-boxes ..	..	..	12	..	..	12	..	6	4	..	2	..	..	36
Frogs ..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Switches, 70 lb. ..	8	..	48	..	46	22	1	5	..	20	..	..	..	150
„ 56 lb.	2	6	3	..	2	..	2	..	4	19
„ 53 lb. ..	1	..	5	20	10½	22	8	66½
Stock rails, 70 lb...	12	2	..	6	20
„ 56 lb...	..	2	2	4
„ 53 lb...	5	5

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1909.
NEW ZEALAND.

GOVERNMENT RAILWAYS SUPERANNUATION FUND:
REPORT OF BOARD.

Laid before Parliament in pursuance of Section 91 of "The Government Railways Act, 1908."

IN accordance with section 91 of The Government Railways Act, 1908," the Board has the honour to transmit, for the information of Parliament, its report and balance-sheet for the year ending 31st March, 1909.

The balance-sheet shows that members contributed £58,434 11s. 8d. (including £5,478 5s. 7d. being arrears paid by the Wellington and Manawatu Railway Company's staff) to the Fund during the year; fines amounted to £298 15s., and interest to £6,557 9s. 3d. In addition to these, the Wellington and Manawatu Railway Company contributed £5,000 in terms of section 96 (2) of "The Government Railways Act, 1908," in consideration of their employees being allowed to count for superannuation purposes their continuous service with the Company; and the Amalgamated Society of Railway Servants paid the sum of £1,500 in terms of section 55 of "The Public Service Classification and Superannuation Amendment Act, 1908," in consideration of the strikers of 1890 being allowed to count for superannuation purposes their continuous service with the Department immediately prior to their going out on strike. These amounts, together with the sum of £126,642 18s. 11d. brought forward from last year, bring out the aggregate sum of £198,433 14s. 10d. shown on the debit side of the balance-sheet.

The superannuation allowances paid during the year amounted to £31,054 8s. 3d., representing grants to 519 members of the railway service who have either voluntarily resigned or been retired as medically unfit. Allowances amounting to £4,198 6s. 8d. were paid in respect to 119 widows and 189 children, dependants of deceased members of the service who had not retired on superannuation at the time of their death; and payments amounting to £225 7s. 2d. were paid to the legal representatives of deceased members under section 86, subsection (c), of the Act.

A sum of £4,880 11s. 8d., representing contributions of members of the service who voluntarily retired or whose services were otherwise dispensed with during the year, was refunded to members concerned, in accordance with the provisions of the Act. Fines remitted and refunded to members amounted to £7 7s. 6d., travelling-expenses of members of the Board to £51 11s. 10d., and commission paid to Public Trust Office to £613 3s. 6d. Payment under section 82 (3) of the Act amounted to £251 3s. 6d., making the total disbursements for the year £41,282 0s. 1d., and leaving a balance of £157,151 14s. 9d. to the credit of the Fund on the 31st March, 1909.

The following show the balances brought forward at the end of each year, and also the annual value of the allowances actually granted by the Board in each year:—

					Balance forward.			Allowances granted.		
					£	s.	d.	£	s.	d.
1903 .. .. .	..	..	..	..	7,056	11	9	..	..	..
1904 .. .. .	..	..	..	..	40,357	17	3	12,010	14	8
1905 .. .. .	..	..	..	..	68,670	7	8	8,519	7	8
1906 .. .. .	..	..	..	..	90,984	11	10	6,348	13	7
1907 .. .. .	..	..	..	..	110,736	12	3	4,398	14	11
1908 .. .. .	..	..	..	..	126,642	18	11	7,332	7	11
1909 .. .. .	..	..	..	..	157,151	14	9	6,359	11	0
								44,969	9	9
Less members died, &c...					..			7,367	7	5
Annual liability at 31st March, 1909 .. .. .					..			£37,602	2	4

The amounts shown in the list attached to the balance-sheet are those actually disbursed during the year, and do not represent the total annual allowances granted by the Board to the 31st March, 1909, which were:—

	£	s.	d.
Life allowances on account of voluntary retirements (501 persons) ..	33,908	9	3
Life allowances on account of retirements as "medically unfit" (95 persons)	5,456	13	9
Allowances to 131 widows and 249 children	5,604	6	9
Total annual allowances granted	£44,969	9	9

Ninety-six beneficiaries have, however, died since the inauguration of the Fund, including twenty-six during the year under review, and seven members who had been placed on the Fund as "medically unfit" resumed duty. The Fund was relieved of an annual liability of £6,298 19s. 5d. in respect to these one hundred and three members. Sixty-one children have reached the age of fourteen years (seventeen during the past year), three children have died (one during the past year), ten widows remarried (four during the past year), and three widows died, lessening the liability of the Fund by an additional £1,068 8s. per annum. Seven hundred and ninety-six persons were actually on the Fund at the 31st March, 1908, involving an annual liability of £37,602 2s. 4d.

J. A. MILLAR,
Minister of Railways,
Chairman of the Board of Administration.

BALANCE-SHEET of the GOVERNMENT RAILWAYS SUPERANNUATION FUND, under Section 90 of "The Government Railways Act, 1908," for the Year ended 31st March, 1909.

<i>Dr.</i>	£	s.	d.	<i>Cr.</i>	£	s.	d.
To Balance brought forward on 1st April, 1908	126,642	18	11	By Life allowances paid, 1st April, 1908, to 31st March, 1909	31,054	8	3
Contributions by members	52,956	6	1	Allowances paid to widows and orphans, 22nd March, 1908, to 20th March, 1909	4,198	6	8
Arrears of contributions paid by employees of the Wellington and Manawatu Railway Company in terms of section 96, (2), of "The Government Railways Act, 1908"	5,478	5	7	Payments under section 86, (c), of "The Government Railways Act, 1908" ..	225	7	2
Fines	298	15	0	Payment under section 82, (3), of "The Government Railways Act, 1908" ..	251	3	6
Contribution by Wellington and Manawatu Railway Company in terms of section 96, (2), of "The Government Railways Act, 1908"	5,000	0	0	Contributions refunded to members who have left the service	4,880	11	8
Payment made by the Amalgamated Society of Railway Servants in terms of section 55, (1), of "The Public Service Classification and Superannuation Amendment Act, 1908" ..	1,500	0	0	Fines remitted and refunded	7	7	6
Interest added by Public Trust Office for year ended 31st March, 1909 ..	6,557	9	3	Travelling expenses of members of Board attending quarterly meetings	51	11	10
				Public Trust Office Commission ..	613	3	6
				Balance at 31st March, 1909, as per statement from Public Trust Office, carried forward	157,151	14	9
	£198,433	14	10		£198,433	14	10

J. A. MILLAR,
Chairman of the Government Railways
Superannuation Fund Board.

H. DAVIDSON,
Chief Accountant, New Zealand Railways.

Examined and found correct.—J. K. WARBURTON, Controller and Auditor-General.—
27th May, 1909.

STATEMENT of RECEIPTS and DISBURSEMENTS of the GOVERNMENT RAILWAYS SUPERANNUATION FUND for the Year ended 31st March, 1909, under Section 90 of "The Government Railways Act, 1908."

RECEIPTS.

Dr.		£	s.	d.	£	s.	d.
	Balance brought forward from 31st March, 1908	..	..	..	126,642	18	11
	Contributions by staff—						
	Head and Departmental Offices ..	4,110	2	3			
	Kawakawa Section	84	5	5			
	Whangarei Section	234	1	5			
	Kaihu Section	111	9	9			
	Gisborne Section	126	14	5			
	North Island Main Lines and Branches	21,186	12	11			
	South Island Main Lines and Branches	24,025	1	7			
	Westland Section	1,431	13	1			
	Westport Section	352	8	4			
	Nelson Section	386	19	6			
	Picton Section	353	4	5			
	Lands and Survey Department ..	1	12	0			
	Justice	2	1	0			
	Arrears of contributions paid by employees Wellington and Manawatu Railway Company	5,478	5	7			
	Fines .. ..	..	..	..	58,434	11	8
	Contribution by Wellington and Manawatu Railway Company in terms of section 96, (2), of "The Government Railways Act, 1908"	..	..	..	298	15	0
	Payment made by the Amalgamated Society of Railway Servants in terms of section 55, (1), of "The Public Service Classification and Superannuation Amendment Act, 1908"	..	..	..	5,000	0	0
	Interest added by Public Trust Office for year ended 31st March, 1909	..	..	..	1,500	0	0
					6,557	9	3
					198,433	14	10

Cr.

DISBURSEMENTS.

Life allowances paid to—	£	s.	d.	(Continued.)	£	s.	d.
Chisholm, D. E.	115	19	0	Life allowances paid to—			
Campbell, G.	42	0	0	Capper, E. H.	47	9	0
Wright, C.	60	0	0	Sweeney, D.	43	16	0
McDonald, J.	67	11	0	Rogers, G.	43	16	0
Walters, J.	70	19	0	Coggins, G.	56	7	0
Hoban, J.	128	17	0	O'Brien, M.	45	13	0
Lucas, J.	45	13	0	Davis, J.	37	11	0
Faulkner, J.	43	16	0	Bandeem, J.	67	16	0
Croft, R.	49	6	0	Cunningham, H. ..	34	14	0
Lane, C.	47	9	0	Parris, H.	51	3	0
Chapman, J.	59	17	0	Sadler, R.	76	6	0
Green, T.	52	3	0	Page, G.	47	9	0
Sharp, R.	45	13	0	Burke, T.	43	16	0
Mussen, C.	45	13	0	Wilcock, G.	83	10	0
McDowell, W.	86	2	0	Meager, T. B.	81	8	0
Kennelly, T.	52	3	0	Grace, G.	54	16	0
Divehall, R.	47	9	0	Greer, R.	43	16	0
Condon, R.	54	5	0	Atkinson, W.	16	8	9
Forsyth, J. C.	59	17	0	Macdonald, J.	66	18	0
Grant, J.	102	0	0	Ballinger, T.	62	12	0
I'Anson, J. M.	112	14	0	Hanham, J.	60	5	0
Austen, T.	49	6	0	Railton, G.	60	5	0
Hodges, E.	52	3	0	Thorne, H.	54	16	0
Irving, J.	61	1	0	Payne, F.	49	6	0
Knight, J.	45	13	0	McEwen, W.	41	2	0
Wesley, W.	102	18	0	Roberts, W.	99	13	0
Morse, G.	51	13	0	Adkins, T.	58	9	0
Copley, A.	66	0	0	Egan, T.	38	7	0
Woods, T.	43	1	0	Rodgers, W.	56	0	0
Dunbar, J.	93	18	0	Rhodes, J.	25	1	0
Neville, P.	87	13	0	Horsnell, S.	75	13	0
Firth, N.	65	15	0	Fraser, E.	51	0	0
Clarke, M.	49	6	0	Gilroy, J.	63	8	0
Kirkwood, J.	43	16	0	Chambers, T. J. ..	81	8	0
Stark, T.	43	16	0	Gorringe, R.	48	18	0
McHugh, G.	68	9	0	Hayden, A.	40	9	2
Fisher, C.	49	6	0	McIlwraith, W. ..	35	9	0
Meyenberg, W.	49	11	0	Millar, C.	40	3	0
O'Connor, J.	73	1	0	Hislop, A.	44	14	0
Haines, C. W.	109	18	0	Fisher, T.	56	17	0
Smith, J.	49	6	0	Diffey, W.	38	7	0
Lowney, M.	49	6	0	Carter, L.	51	2	0
Johnston, R.	51	3	0	Bennett, R.	58	8	0
McEwen, D.	39	3	0	Ford, P.	51	2	0
Manhire, R.	52	19	0	Rouse, P.	68	2	0
Towler, F.	47	17	0	Wakeling, J.	56	7	0
Heaton, C.	58	14	0	Graham, J.	66	10	0

(Continued.)

(Continued.)

Cr. GOVERNMENT RAILWAYS SUPERANNUATION FUND—DISBURSEMENTS—*contd.*

(Continued.)			(Continued.)		
Life allowances paid to—			Life allowances paid to—		
	£	s. d.		£	s. d.
Walsh, M.	38	7 0	Collick, U.	42	0 0
Hook, J.	27	8 0	Shirley, J. W.	25	9 0
Horsnell, H.	34	14 0	Symons, C.	36	10 0
Anderson, C.	43	16 0	Collier, C.	67	16 0
Croskery, J.	49	6 0	Dowrick, W.	56	7 0
King, F. W.	47	9 0	Russell, J.	38	7 0
Bryant, W.	38	7 0	Tuffley, D.	40	3 0
Hardy, J.	60	5 0	Martin, T.	73	1 0
Neil, J.	44	5 0	Stewart, J.	95	0 0
Ellis, J. A.	77	0 0	Joyce, T.	51	2 0
Richards, D.	88	14 0	Sweeney, B.	40	3 0
Devlin, H.	36	10 0	Hood, C.	38	7 0
Webster, C. A.	58	12 0	Booker, H.	51	3 0
Wells, H.	48	0 0	Burgess, T.	40	3 0
Earl, J.	42	0 0	Marcus, C. A.	172	10 0
Conley, J.	33	8 0	Gallagher, F.	47	9 0
Timms, J.	38	7 0	Galloway, T.	84	18 0
Hope, W.	58	9 0	O'Malley, J.	56	12 0
Sinclair, J. J.	43	16 0	Matthewson, J.	155	0 0
Elwood, J.	44	12 0	Redpath, J.	67	16 0
Tindale, E.	77	0 0	McIntyre, A.	64	14 0
Reynolds, J.	51	3 0	Nimmo, T.	73	1 0
Crawley, W.	87	15 0	Phillips, J.	36	10 0
Hill, T.	38	7 0	Bryant, T.	25	11 0
Boyd, D.	57	0 0	Wishart, A.	80	13 0
Penn, H.	88	3 0	Olson, C. M.	66	0 0
Scott, J.	5	4 0	Smith, T.	71	15 0
Paice, G.	60	10 0	Barr, A.	47	9 0
Christie, T.	43	2 0	McCormick, Mrs. A.	51	13 0
Austin, J.	67	16 0	Bishop, T.	86	2 0
Petrie, J.	95	8 0	Graham, H.	29	9 11
Saunderscock, J.	45	13 0	Lunham, H.	45	13 0
Logan, W.	74	7 0	Barr, W. L.	79	8 0
Rodgers, J.	46	11 0	Mitchell, C. F.	36	10 0
Brophy, M.	52	19 0	Silva, J.	38	7 0
Harris, J.	38	7 0	Moir, R.	24	16 0
Roskrige, T. F.	80	0 0	Tonkin, J.	60	10 0
Fife, A. C.	379	3 0	Mellroy, R.	80	17 0
Brooks, J.	63	0 0	Burnby, C.	66	3 9
Kelliher, C.	51	2 0	Dowden, A.	47	7 0
O'Malley, M.	34	14 0	Sweet, G.	49	6 0
Sim, J.	50	16 0	Olsen, T.	47	9 0
Gates, S.	38	7 0	Horne, A.	21	18 0
Nichols, I.	58	14 0	Barter, T.	65	15 0
Quilici, P.	42	0 0	Smart, T.	58	5 0
Leathwick, B. T.	108	10 0	Russell, P.	58	8 0
Love, J.	40	14 0	Barnes, J.	28	12 4
Isherwood, C. F. F. A. R.	77	0 0	Adams, H.	49	6 0
Cooper, R.	56	15 0	Stevenson, W.	58	8 0
Gieseg, H.	40	3 0	Moore, R.	71	15 0
Young, T.	87	13 0	Freeman, H. R.	59	17 0
Mayer, J. P.	56	12 0	Johnson, C. W.	48	0 0
Clarke, W.	81	3 0	Craven, H.	150	0 0
Oldham, J. W.	87	0 0	Cocksedge, J.	62	12 0
O'Connor, B.	36	10 0	Wyatt, J.	42	0 0
Ruddle, W.	93	18 0	Peterkin, T. A.	175	15 0
Ashby, T.	49	6 0	Hillier, W.	121	0 0
Boyle, J.	36	10 0	Gunner, J.	66	16 0
Templeton, S.	35	9 0	Allan, P.	54	10 0
Elsom, J.	52	3 0	McAleer, R. J.	49	11 0
Heinemann, F.	52	19 0	Brebner, A. G.	160	0 0
Mitchell, A.	42	5 0	Efford, J. A.	65	15 0
Lafferty, J.	29	15 0	Dixon, H.	73	1 0
Alexander, W.	132	0 0	Anderson, J.	39	3 0
Winter, W.	51	3 0	Griffiths, J.	74	12 0
Matheson, J.	52	6 0	Trevella, S.	64	14 0
O'Callaghan, C.	26	15 9	Esther, R. T.	30	0 0
Voyce, H.	51	2 0	Cairns, W.	65	15 0
Bolton, W.	60	13 0	Moore, P.	49	6 0
Rowse, J.	19	19 0	Eccles, T.	51	3 0
Potter, T.	56	7 0	Emerson, T.	66	10 0
McKenzie, S.	49	6 0	Shea, W.	90	0 0
Ingles, A.	49	4 0	Crisp, J.	70	19 0
Sharp, J.	65	15 0	Sadler, W.	50	2 0
Mainwaring, E. G. H.	115	0 0	Gulliver, W. J.	83	0 0
Kirk, A. R.	66	0 0	Graham, T.	33	8 0
Ronan, W.	42	0 0	Woodbury, J.	93	18 0
Charles, W.	25	11 0	Butler, J.	60	10 0
Marshall, C.	52	16 0	Bailey, I.	51	3 0
Taylor, A.	125	0 0	Dewe, E.	54	16 0
Hoskin, J.	48	1 0	Loomes, C.	51	3 0
Bishop, C.	48	18 0	Course, G.	80	17 0
Cavanagh, B.	52	19 0	Tanner, J.	52	19 0
Gardner, W.	27	8 0	Scott, T.	113	13 0
Lawrell, H. W.	94	10 0	Shann, G.	50	2 0
Robinson, J.	50	4 0	Shuffill, W.	49	6 0

(Continued.)

(Continued.)

Cr. GOVERNMENT RAILWAYS SUPERANNUATION FUND.—DISBURSEMENTS—*contd.*

(Continued.)		£	s.	d.	(Continued.)		£	s.	d.
Life allowances paid to—					Life allowances paid to—				
Power, T. ..	..	36	10	0	Lobb, J. H. ..	..	49	6	0
Fitzgerald, O. ..	..	49	6	0	Sellars, G. ..	..	66	16	0
Foster, C. ..	..	60	1	0	Staunton, T. ..	..	56	12	0
Fyfe, A. ..	..	93	18	0	Hutchinson, J. C. ..	..	66	18	0
Cleverley, C. ..	..	82	4	0	Burke, J. ..	..	42	0	0
Alexander, W. ..	..	84	10	0	Pope, F. J. ..	..	67	16	0
Broad, G. ..	..	86	2	0	Webster, W. ..	..	64	6	0
Stagg, W. ..	..	42	0	0	Pedlow, J. ..	..	52	19	0
White, G. ..	..	45	0	0	Thomas, J. ..	..	106	8	0
Gordon, J. ..	..	54	18	0	Ramage, R. ..	..	62	12	0
Verrey, W. A. ..	..	65	4	0	Telford, J. ..	..	39	13	0
Fee, E. ..	..	43	16	0	Conland, G. ..	..	63	16	0
Smeal, W. ..	..	66	18	0	Yardley, T. G. ..	..	88	19	0
Grave, O. ..	..	61	19	2	McKellar, A. ..	..	83	7	0
Fuller, J. ..	..	34	1	7	Hislop, J. ..	..	63	0	0
Tank, R. ..	..	49	6	0	Pachnatz, F. ..	..	64	14	0
Gilbransen, L. ..	..	29	4	0	McNeil, W. P. ..	..	113	13	0
Moore, G. ..	..	81	0	0	Stephens, W. H. ..	..	75	13	0
Frost, J. E. ..	..	50	18	0	Cameron, J. ..	..	56	12	0
Horgan, J. ..	..	43	16	0	Walsh, L. ..	..	45	13	0
Chapman, G. ..	..	77	9	0	Millar, R. ..	..	73	19	0
Cairns, P. ..	..	45	7	0	Thacker, H. ..	..	88	0	0
Mitchell, A. ..	..	68	9	0	Wakelin, W. T. ..	..	76	14	0
Elvines, F. ..	..	57	7	8	Symons, J. ..	..	66	16	0
Hamson, W. ..	..	70	17	0	Glenny, I. W. ..	..	117	7	0
Smith, J. ..	..	190	0	0	Smyth, R. ..	..	52	3	0
Finnie, J. ..	..	79	9	0	Gillman, G. F. ..	..	69	0	0
Sheridan, H. ..	..	65	15	0	Leamy, J. ..	..	21	18	0
Tull, B. ..	..	58	8	0	Trounce, R. D. ..	..	49	6	0
James, R. ..	..	35	17	11	Burgess, J. ..	..	37	11	0
Scott, D. ..	..	29	4	1	Duffy, A. ..	..	109	11	0
Ewing, R. ..	..	52	1	0	Frame, J. ..	..	150	0	0
Carrell, J. ..	..	57	13	0	Wellsted, G. G. ..	..	140	19	10
Greenwood, R. W. ..	..	54	15	0	Murdoch, J. ..	..	110	0	0
Slater, J. ..	..	36	2	0	Mason, W. ..	..	103	6	0
Milroy, J. ..	..	54	16	0	Kay, J. ..	..	96	0	0
Stevens, M. ..	..	21	18	0	Dineen, D. ..	..	52	19	0
Mills, C. ..	..	43	16	0	Dow, R. ..	..	58	14	0
Stubbs, A. ..	..	79	16	0	Watt, N. ..	..	84	18	0
Gordine, A. ..	..	69	10	0	How, C. ..	..	103	6	0
Varcoe, J. ..	..	58	8	0	Webb, H. J. ..	..	103	6	0
Whitehead, J. ..	..	49	6	0	Blockley, T. ..	..	52	19	0
Harms, N. ..	..	51	3	0	Stanley, T. ..	..	109	11	0
Staunton, J. ..	..	40	3	0	Butt, E. ..	..	39	3	0
Newlands, J. ..	..	87	13	0	Dumbleton, W. ..	..	66	16	0
Thompson, W. ..	..	27	8	0	Beamish, C. ..	..	78	5	0
Auton, M. ..	..	32	4	0	Shardlow, B. ..	..	29	15	0
Such, W. P. ..	..	80	17	0	Abel, W. ..	..	78	0	0
Liddell, G. ..	..	75	6	3	Oliver, H. ..	..	43	1	0
Fitzhenry, W. ..	..	54	16	0	Kemp, W. ..	..	88	19	0
Cockburn, J. ..	..	42	0	0	Dervan, A. ..	..	14	12	0
Gibson, L. ..	..	62	12	0	Brown, H. ..	..	38	7	0
Evans, G. ..	..	19	17	0	Doherty, J. ..	..	66	16	0
Walton, J. ..	..	56	12	0	Luke, R. H. ..	..	56	7	0
Griffiths, J. ..	..	71	15	0	Pullin, W. ..	..	64	14	0
Shinkwin, C. ..	..	27	8	0	Wall, W. ..	..	52	19	0
Delaney, W. ..	..	48	16	0	McDonald, J. ..	..	51	3	0
Connal, R. ..	..	60	5	0	Barnett, J. ..	..	60	1	0
Eadie, J. ..	..	97	1	0	Barber, A. ..	..	45	8	0
Evans, R. ..	..	52	1	0	Sloan, P. ..	..	54	16	0
Thorne, G. ..	..	40	3	0	Tate, W. ..	..	56	15	0
Round, E. ..	..	69	8	0	Loan, J. ..	..	56	15	0
Summers, G. ..	..	46	11	0	Laws, T. ..	..	68	9	0
Robertson, A. ..	..	60	13	0	Duncan, R. ..	..	62	12	0
Undrill, T. ..	..	45	18	0	Sweetman, F. ..	..	46	11	0
Wells, W. ..	..	64	14	0	Robins, G. ..	..	43	16	0
Miller, J. ..	..	66	10	0	Staunton, J. ..	..	62	12	0
Felton, G. ..	..	250	0	0	Crisp, J. ..	..	130	0	0
Hart, A. ..	..	60	10	0	Barry, M. ..	..	32	8	0
Verdon, B. ..	..	135	13	0	Hollinger, T. ..	..	45	13	0
Packman, A. ..	..	90	0	0	Turnbull, A. ..	..	111	14	0
Ferguson, R. ..	..	42	0	0	McKelvie, S. ..	..	75	2	0
Dellow, W. S. ..	..	68	2	0	Stewart, J. ..	..	100	3	0
Ingram, C. E. ..	..	124	13	0	Lowe, F. C. ..	..	65	15	0
Fowke, T. M. ..	..	104	7	0	McMullan, H. ..	..	41	1	8
Cottam, G. H. ..	..	113	13	0	Shaw, F. ..	..	66	16	0
Anderson, R. ..	..	70	19	0	Day, F. ..	..	39	15	10
Wylie, N. B. ..	..	63	0	0	McWilliams, A. ..	..	170	0	0
Bryant, E. ..	..	52	19	0	Sinclair, A. ..	..	102	0	0
Hodge, W. ..	..	82	3	0	Duncan, J. ..	..	58	9	0
Salisbury, E. ..	..	94	14	0	Piper, J. W. ..	..	236	13	0
Kulsch, C. A. ..	..	81	8	0	Snaddon, A. ..	..	72	0	0
Smith, A. G. ..	..	62	2	0	Joiner, G. ..	..	56	12	0
Power, W. ..	..	51	0	0	Sparks, J. ..	..	80	8	1
Hansen, C. ..	..	51	3	0	Gavey, J. ..	..	58	11	8
Draper, G. D. ..	..	92	0	0	Holmes, J. ..	..	84	2	6
Osborn, J. ..	..	51	3	0	Jones, H. J. ..	..	91	18	0

(Continued.)

(Continued.)

Cr. GOVERNMENT RAILWAYS SUPERANNUATION FUND.—DISBURSEMENTS—*contd.*

(Continued.)			£	s.	d.	Allowances paid to widows and orphans			
Life allowances paid to—			for period 22nd March, 1903, to 20th			March, 1909 (52 weeks)—			
						£	s.	d.	
Coom, J.	435	0	0	Sherburb, W. G., and two children ..	26	0	0
Pickard, J.	72	10	3	Saddler, M. ..	17	19	1
Gibb, H.	78	5	0	Lewis, A. E., and three children ..	52	14	1
Sloan, W. J.	97	10	9	Levett, K. ..	17	19	1
Chunn, J.	70	11	5	Johnsen, I. M. ..	17	19	1
Qualey, M.	42	17	6	Long, M. ..	17	19	1
Jones, J. F.	88	2	5	Murie, J. ..	17	19	1
Loader, J.	73	18	3	McDowell, R. A., and four children ..	69	19	1
Cory, M.	66	14	0	Evans, E. J. ..	17	19	1
Butler, J.	68	6	11	Buchanan, M. J. ..	17	19	1
Wright, J.	49	16	1	Murphy, M. A. ..	17	19	1
O'Donnell, J.	33	14	9	Lawson, M., and two children ..	43	19	1
Dixon, C.	37	14	8	Meager, K. A. ..	17	19	1
Garrard, G.	49	14	2	Martin, A., and one child ..	30	19	1
Serpless, J.	46	10	6	Johnston, M. ..	19	6	9
Power, W. E.	53	1	3	Nelson, M., and one child ..	20	14	10
Sherris, J.	93	11	11	Meredith, A. ..	17	19	1
Ross, R.	57	3	9	Haynes, S. ..	17	19	1
Atyeo, A.	34	4	3	Fleming, W. A., and two children ..	43	19	1
Dennis, T.	70	16	11	Kelly, C. M., and three children ..	56	19	1
Gladwin, T.	40	14	1	Orr, J. ..	17	19	1
Noble, T.	52	14	8	Murchie, S. M., and one child ..	30	19	1
Burton, A.	31	15	3	Bracefield, J., and one child ..	24	19	10
Whelan, E.	29	11	8	Wheeler, C., and two children ..	43	19	1
George, E.	48	16	5	Gilmer, E. M., and two children ..	43	19	1
Gibson, G.	31	17	7	Children (three) of the late G. Elliott ..	39	0	0
Brown, D.	33	17	11	Dowland, A., and one child ..	30	19	1
Williamson, A.	34	15	6	Pedlow, R., and two children ..	43	19	1
Robertson, J. F.	74	7	6	Currie, J. ..	17	19	1
McQueen, L.	11	18	8	Dunn, A., and two children ..	43	19	1
Semple, W.	20	7	2	Close, M. ..	17	19	1
Kerr, J.	50	16	2	Haining, A. A., and two children ..	43	19	1
Hurndell, H.	24	10	4	Ruane, J., and six children ..	74	3	5
Mullan, T.	41	17	6	Venn, M. J. ..	17	19	1
Nicol, J.	33	11	0	Keyte, E. ..	17	19	1
Currie, J.	21	0	8	Children (two) of the late J. S. Smith ..	26	0	0
Schneider, F.	26	7	9	Walton, E. ..	17	19	1
Crombie, W.	51	4	1	Thomas, M. E. J., and four children ..	65	5	7
Mack, J.	23	13	6	Wilson, P. H. ..	17	19	1
Hannay, W. M.	74	12	11	McPherson, M., and two children ..	37	19	10
Newman, W.	16	15	9	Smith, B. A. L., and one child ..	21	2	7
Ansell, J. R.	12	1	2	Gifford, M. M., and one child ..	35	14	5
Bowler, P.	14	8	3	Meadowcroft, E., and three children ..	56	19	1
Grierson, A.	23	19	0	Reed, S., and one child ..	24	4	8
Kendall, W.	11	9	11	Jamieson, M. J. ..	17	19	1
Drennan, J.	16	13	10	Children (two) of the late F. W. Styles ..	16	10	0
Robinson, T. W.	6	10	5	Stewart, E. M., and two children ..	43	19	1
Foster, C. H.	14	8	9	Muir, R., and one child ..	30	19	1
Newlands, W.	8	13	7	Beaton, E., and five children ..	82	19	1
Maclay, R.	2	14	9	Chalmers, A. ..	17	19	1
Hull, H.	6	9	1	Nixon, M., and one child ..	30	15	6
Irwin, J.	5	0	5	McChesney, C., and one child ..	30	19	1
McPherson, D.	8	0	11	Colthorpe, E., and one child ..	30	19	1
Patrick, A.	Jones, A. B., and two children ..	43	19	1
Crutch, C.	10	6	5	Clare, E. I., and four children ..	69	19	1
Jones, S.	4	0	9	Froggatt, L. A. ..	17	19	1
Bartlett, G.	3	16	1	Kerr, E. ..	17	19	1
Gillespie, J.	1	11	5	Sheehan, S. A., and two children ..	43	19	1
Pert, J.	0	15	10	Warren, E. G., and two children ..	43	19	1
Solomon, W.	5	1	1	Layton, E. ..	17	19	1
Cooper, T.	42	15	4	Hastings, A., and four children ..	69	19	1
Bruce, J.	17	13	0	McCullough, S. ..	17	19	1
Hawkins, T.	29	3	0	Bryant, H., and four children ..	67	1	11
Kelly, T.	15	8	10	Brown, H., and four children ..	69	19	1
Gruit, W. H.	34	4	9	Abraham, E. A. ..	17	19	1
McKenna, E.	31	3	4	Holland, A., and two children ..	43	19	1
Reid, D. R.	15	12	11	Nicol, L. ..	17	19	1
Burns, C.	19	11	3	Maher, M. L., and two children ..	43	19	1
Winton, J.	16	9	4	Lawson, M., and one child ..	30	19	1
Nightingale, T.	11	2	10	Thornton, J., and four children ..	69	19	1
Shaw, W. C.	25	8	5	Edwards, M. E., and four children ..	69	19	1
Sword, B.	87	15	0	Livingstone, M. C., and one child ..	30	19	1
Mills, J.	29	19	8	Cole, M. A. ..	17	19	1
Sharkay, J.	21	5	10	Alexander, H. E., and three children ..	56	9	1
Jones, J. E.	31	19	4	Jonas, M., and two children ..	36	14	10
Morgan, A.	16	8	8	Seaman, C. M. ..	17	19	1
Ffitch, G. S.	13	10	10	Burnes, M. J. F. ..	17	19	1
Lilly, J.	22	7	5	Hood, A. ..	17	19	1
Muirhead, J.	54	5	4	Shannon, A., and three children ..	56	19	1
Bowden, G.	37	0	8	Sullivan, M., and four children ..	69	19	1
			31,054	11	2	Yates, M., and four children ..	69	19	1
Less repayments to fund—						Richards, A. J., and two children ..	43	19	1
Mayer, H.	0	2	11	Moore, M. A., and three children ..	56	4	1
			£31,054	8	3	Hesp, S. A. ..	17	19	1
						Horne, A. J., and two children ..	43	19	1

(Continued.)

Cr. GOVERNMENT RAILWAYS SUPERANNUATION FUND.—DISBURSEMENTS—*contd.*

Allowances paid to widows and orphans for period 22nd March, 1908, to 20th March, 1909 (52 weeks)— <i>continued.</i>			Payments to legal representatives of the under-named deceased beneficiaries under the provisions of section 86, (c), of "The Government Railways Act, 1908," viz.:—		
	£	s. d.			£ s. d.
McCarthy, J., and two children ..	43	19 1	Late G. S. Fitch—		
Syms, E. M. ..	17	19 1	Contributions ..	96	6 5
Young, A., and one child ..	30	19 1	Compensation ..	224	8 5
Bennett, M. H., and five children ..	82	19 1		320	14 10
McNab, C. ..	17	19 1	Less superannuation allow-	176	0 10
O'Reilly, E., and six children ..	95	19 1	ance paid		144 14 0
MacCurdy, C. E., and two children ..	43	19 1	Late J. Lilly—		
Dolan, M., and one child ..	30	19 1	Contributions ..	81	5 6
Evaus, M., and four children ..	63	19 1	Compensation ..	Nil	
Turner, B. O., and one child ..	30	19 1		81	5 6
Dickson, I., and two children ..	43	19 1	Less superannuation allow-	30	10 4
Spencer, E., and one child ..	21	5 6	ance paid		50 15 2
Children (three) of the late P. McDonnell	43	7 2	Late J. Muirhead—		
Mundy, M., and three children ..	46	6 9	Contributions ..	95	17 3
Andrews, M. L., and four children ..	68	5 6	Compensation ..	Nil	
Children (two) of the late G. B. Monson	13	9 3		95	17 3
Galvin, M. ..	17	19 1	Less superannuation allow-	65	19 3
Watt, M. ..	24	16 4	ance paid		29 18 0
Robinson, E. ..	17	19 1	Payment to the legal representative of		
Andrews, S. A. ..	17	19 1	the under-named deceased beneficiary		
Wise, M. C., and two children ..	28	2 5	under the provisions of section 82, (3),		
Smith, M. ..	17	19 1	of "The Government Railways Act,		
Stirling, M. ..	21	10 3	1908":—		
Martin, J., and four children ..	60	7 1	Late T. Miller—		
Durrant, E. A., and four children ..	55	16 11	Contributions ..	176	16 2
Greig, S. E. ..	14	14 9	Compensation ..	74	7 4
Heycock, C. G. H., and two children ..	25	5 0		251	3 6
Armstrong, M., and five children ..	51	11 7	Contributions refunded to members who		
Denison, M. J., and one child ..	7	18 5	have left the service ..	4,880	11 8
Lewton, J. E., and one child ..	18	11 0	Fines remitted and refunded ..	7	7 6
Carter, E., and one child ..	16	19 6	Travelling-expenses of members of Board		
Byrne, E. L., and one child ..	12	15 0	attending quarterly meetings ..	51	11 10
Faulkner, M. T., and four children ..	32	15 9	Public Trust Office commission ..	613	3 6
MacLeod, M. E., and one child ..	13	17 6	Balance at 31st March, 1909, as per state-		
Schrader, E. ..	7	6 6	ment from Public Trust Office carried		
Cooper, M. A. ..	6	19 5	forward ..	157,151	14 9
Sammons, C. ..	6	11 5		£198,433	14 10
Winter, A. H. S. ..	6	8 5			
Watkin, A. ..	3	18 1			
	£4,198	6 8			

J. A. MILLAR,
Chairman of the Government Railways
Superannuation Fund Board.

H. DAVIDSON,
Chief Accountant, New Zealand Railways.

Examined and found correct. — J. K. WARBURTON, Controller and Auditor-General.—
27th May, 1909.

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1909.

NEW ZEALAND.

DEPARTMENT OF IMMIGRATION

(ANNUAL REPORT OF).

Presented to both Houses of the General Assembly by Command of His Excellency.

SIR,—

Immigration Department, Wellington, 8th June, 1909.

Herewith I have the honour to submit the annual report upon the immigration which has taken place into New Zealand from the United Kingdom during the year 1908–9.

I have, etc.,

WM. C. KENSINGTON,

Under-Secretary.

The Hon. George Fowlds, Minister of Immigration.

REPORT.

I HAVE to report that during the year ended 31st March last the number of statute adults who have received passages at reduced rates amounted to 4,141½, equalling 4,953 souls. These were distributed over forty-seven trips of the several steamers coming to the Dominion—an average of 105 souls for each steamer. Ten vessels sailed in the quarter ended 30th June, eleven in the September quarter, thirteen in the December quarter, and thirteen in the March quarter. The return attached supplies detailed information regarding the names of the vessels, and the number carried in each. The capital of those who had been assisted amounted to £96,055, and in addition to this a few were in receipt of small incomes which totalled to £462 a year.

The number of souls that were nominated by relatives in the Dominion during the year was 2,289, and the money received from the nominators towards the cost of the passages amounted to £18,484.

The High Commissioner reports that during the past year the number of people going to Canada diminished owing to discouraging reports, and accordingly the stream of people leaving the United Kingdom was diverted to other colonies, and of these we no doubt obtained a full share. Hence it happened that, starting with the s.s. “Ionic,” which left London for New Zealand in July, 1908, the passenger-vessels for the Dominion have carried large numbers of full-paying passengers, who trusted that in a country like this they would find themselves in a better position than that which they occupied in the United Kingdom.

Inquiries and applications for information regarding passages at reduced rates were numerous at the High Commissioner’s office.

The majority of the applicants, upon the information they received, did not proceed any further or make formal application. Nevertheless there were 2,191 completed applications for reduced-rate passages which were declined by the High Commissioner.

As showing the careful manner in which the question of suitability is dealt with by the office in London, I would refer to the following extracts from the reports of Dr. W. Spooner and Mr. R. H. Hooper. The former inspected the s.s. “Morayshire,” which sailed from Liverpool on the 17th October, 1908, and the latter the s.s. “Arawa,” which sailed from London on the 15th October, 1908.

Dr. Spooner states, “I inspected the passengers on board the ‘Morayshire,’ and found them all in good health and of good physical stamina. I may remark that, from the experience I have had in examining passengers for the Board of Trade, I have found that the emigrants embarking for Australia and New Zealand are much superior in physique and stamina to those proceeding either to the United States or Canada, which points to the conclusion that the coming race of New-Zealanders and Australians bid fair to be the pick of the British Empire.”

Mr. Hooper says, “I have to report visiting the s.s. ‘Arawa,’ which sailed from the Albert Docks to-day with 125 assisted passengers, including a number of children. On inspection, I found the passengers to be a very satisfactory body of people as regards health, physique, and general appearance. I may mention that the Board of Trade officials commented spontaneously on the high general standard of this lot of passengers. I was asked, in fact, whether we had increased the severity of our tests.”

Inspections are made under the High Commissioner’s instructions of the persons who obtain passages at reduced rates upon every vessel.

The London office takes no action in regard to those who may be emigrating and who have made their own arrangements with the shipping companies.

The number of persons who arrived from the United Kingdom during the year and who had made their own arrangements with the companies was 7,121.

It might be mentioned that some of them had applied for reduced-rate passages, but, as they were not eligible under the conditions in vogue, they were refused the concession.

Of the souls who were assisted there were 332 wives and 826 children of persons who had previously arrived, and, finding employment, nominated their families for passages at reduced rates.

It is stated above that the capital introduced into the Dominion during the year by those who were assisted amounted to £96,055; but it must be remembered that this only applies to those who made arrangements with the High Commissioner, and does not refer to any of those who have been nominated in the Dominion, as one condition of the nomination must be that the person doing so has provided or will provide for his nominees upon arrival.

The number of letters received during the year was 6,330, and 7,235 were despatched from the office.

RETURN showing the NAMES of the VESSELS which carried Passengers at Reduced Rates from the United Kingdom for the Year ending 31st March, 1909; and also the NUMBER of PERSONS granted Passages, together with the AMOUNT of CAPITAL possessed by them.

Date of Leaving.	Steamer.	Souls.	Adults.	Declared Amount of Capital.	Income.	Amount of Passage-money paid by High Commissioner.
1908.				£	£	£
April 3	Athenic	126	105 $\frac{3}{4}$	2,993	25	423
" 11	Cornwall	27	22 $\frac{3}{4}$	278	...	91
" 16	Papanui	42	33 $\frac{1}{2}$	669	...	134
May 1	Corinthic	185	151 $\frac{1}{2}$	6,914	200	606
" 2	Fifeshire	40	30	568	...	120
" 14	Ruapehu	88	71	1,970	60	284
" 29	Arawa	104	88 $\frac{1}{2}$	1,559	...	354
" 30	Norfolk	25	17 $\frac{3}{4}$	130	...	71
June 11	Rimutaka	103	85 $\frac{3}{4}$	3,232	...	343
" 26	Mamari	86	72	3,323	...	288
July 2	Oswestry Grange	56	49 $\frac{1}{4}$	1,643	...	197
" 9	Tongariro	74	62 $\frac{1}{4}$	1,518	...	249
" 24	Ionic	360	296	8,423	...	1,184
" 25	Ripplingham Grange	18	18	347	...	72
Aug. 7	Turakina	57	50 $\frac{1}{4}$	842	40	201
" 21	Athenic	327	270 $\frac{1}{2}$	9,076	...	1,082
" 22	Surrey	58	53	1,522	...	212
Sept. 3	Paparoa	27	21	359	...	84
" 4	Karamea	103	87 $\frac{3}{4}$	1,238	...	351
" 18	Corinthic	225	188 $\frac{1}{4}$	3,403	...	753
" 19	Devon	47	38	525	40	152
Oct. 1	Ruapehu	27	21 $\frac{1}{2}$	172	...	86
" 3	Papanui	145	129 $\frac{1}{4}$	5,020	45	517
" 15	Arawa	129	105 $\frac{1}{4}$	1,781	...	421
" 17	Morayshire	34	28 $\frac{1}{2}$	460	...	114
" 29	Rimutaka	35	30	100	...	120
Nov. 7	Wakanui	332	275 $\frac{3}{4}$	6,477	...	1,103
" 14	Tainui	189	165 $\frac{1}{2}$	2,942	...	662
" 14	Cornwall	61	47 $\frac{3}{4}$	730	...	191
Dec. 2	Mamari	249	215 $\frac{1}{2}$	3,176	...	862
" 5	Whakatane	123	105 $\frac{1}{4}$	1,549	...	421
" 10	Ionic	405	334	9,863	...	1,336
" 12	Fifeshire	66	54 $\frac{1}{4}$	989	...	217
" 29	Turakina	70	59 $\frac{3}{4}$	1,434	...	239
1909.						
Jan. 5	Tongariro	2	2	30	...	8
" 8	Athenic	289	248 $\frac{3}{4}$	4,007	...	995
" 9	Kumara	66	54 $\frac{1}{4}$	614	...	217
" 9	Drayton Grange	9	9	603	...	36
" 22	Paparoa	48	41 $\frac{3}{4}$	581	...	167
" 30	Ayrshire	3	3	...	...	12
Feb. 5	Corinthic	237	193 $\frac{1}{2}$	3,113	52	774
" 6	Langton Grange	43	33 $\frac{1}{2}$	370	...	134
" 18	Ruapehu	73	55 $\frac{1}{4}$	552	...	221
March 5	Arawa	66	55 $\frac{1}{2}$	524	...	222
" 6	Nairnshire	16	12 $\frac{1}{4}$	27	...	49
" 18	Rimutaka	54	43 $\frac{3}{4}$	409	...	175
" 27	Essex	4	4	...	...	16
Totals	...	4,953	4,141 $\frac{1}{2}$	96,055	462	16,566

SUMMARY of PERSONS who embarked for New Zealand from the United Kingdom from 1st April, 1908, to 31st March, 1909.

Farmers.		Domestics.	Artisans and Miscellaneous.		Total Number of Souls.
Single Men and Heads of Families.	Souls.		Single Men and Heads of Families.	Souls.	
<i>Approved by High Commissioner.</i>					
1,016	2,339	461	7	22	2,822
<i>Authorised by Immigration Department in New Zealand.</i>					
118	238	173	660	1,720	2,131.
1,134	2,577	634	667	1,742	4,953

Approximate cost of paper.—Preparation, not given ; printing (1,550 copies), £2 7s. 6d.

Price 3d.]

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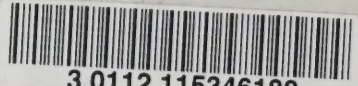
Summary of the results of the investigation of the ...
 1000 to 10000 ...

No.	Date		Time	Place	Remarks
	Month	Day			
1	1900	10	10	...	...
2	1900	11	11	...	...
3	1900	12	12	...	...
4	1900	13	13	...	...
5	1900	14	14	...	...
6	1900	15	15	...	...
7	1900	16	16	...	...
8	1900	17	17	...	...
9	1900	18	18	...	...
10	1900	19	19	...	...
11	1900	20	20	...	...
12	1900	21	21	...	...
13	1900	22	22	...	...
14	1900	23	23	...	...
15	1900	24	24	...	...
16	1900	25	25
17	1900	26	26
18	1900	27	27
19	1900	28	28
20	1900	29	29
21	1900	30	30

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